BOOKKEEPING and ACCOUNTING

McKINSEY

VOLUME II

SERIES A

BOOKKEEPING AND ACCOUNTING

By

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PREFACE

The subject matter of this text may be divided broadly into two parts. The first twelve chapters deal with the general principles governing the construction and use of reports, accounts and records. In these chapters the accounts and records of a corporation and the accounts of a manufacturing business are given particular attention. Some attention is given to the problem of depreciation and to the technical phases of account keeping as illustrated in special types of ledger records. Chapter XLVIII affords a drill on the subject matter of Chapters XXXVI to XLVII and a thorough review in the application of general accounting principles.

The last twenty-four chapters deal primarily with the use of accounting in the control of the relations which the business unit must have with those both external and internal to its organization. The purpose and aim of these chapters is fully set forth in Chapter XLIX on "The Relation of Accounting to Business Management."

Chapters L to LV deal with the construction and interpretation of the orthodox financial statements which are used by business executives, stockholders, creditors and governmental agencies in judging the financial condition of a business at a specific time and its progress during a specific period of time. Chapters LVI and LVII explain the construction and interpretation of financial statements other than the Balance Sheet and Statement of Profit and Loss of an industrial or commercial firm. Chapters LVIII to LXV treat of records and reports used in the control and management of the operations of the functional departments of a business. Chapter LXVI deals with accounting for the investments in other companies. Chapters LXVII to LXXII deal with the accounting organization and procedure by which the information discussed in the preceding chapters is collected, organized, classified and presented for executive use.

There is much material included in this text which is not ordinarily included in a text on bookkeeping and accounting. This material is introduced to give the student sufficient information with reference to the problems of business management to enable him to understand how accounting may be used in their solution. Throughout the text the student is taught to look at the accounting records from the viewpoint of the manager, rather than from the viewpoint of the bookkeeper. This not only enables him to construct the records so that they will be most useful to the manager, but also gives him a training which will assist him to advance to a managerial position.

The text material is divided into distinct chapters, each chapter dealing with one principal topic. Each chapter consists of three parts:

1. A discussion of the accounting principles which relate to the topic of the chapter.
2. A series of questions and short problems for class discussion which develop and apply the principles discussed in the chapter. These questions are primarily "thought" questions which develop the students' ability to analyze and interpret business and accounting statistics.
3. Laboratory exercises and problems which illustrate and require the application of the principles discussed in each chapter. Although most of the laboratory material consists of short exercises which illustrate specific principles and minimize detail, there is given one complete "set"—Chapter XLVIII—which covers a fiscal period of two months and affords the student an acquaintance with the bookkeeping system as a whole.

The material is especially adapted to instruction by the class recitation method. It has been arranged so that class assignments can be made and recitation based on these assignments conducted.

The author is indebted to many teachers, accountants and business men for assistance and helpful suggestions in connection with the preparation of the manuscript. Among those to whom he is especially indebted are the following: Homer N. Sweet, C. P. A. of the firm of Lyrand, Ross Brothers, and Montgomery who provided some of the subject matter of Chapter LXII on "Records and Reports for the Purchasing Department"; A. O. Brungardt, Assistant Works Manager, Boston Factory, Walworth Manufacturing Company who assisted in the preparation of Chapters LX and LXI on the "Records and Reports of the Production Department"; W. H. Spencer, Assistant Professor of Business Law, University of Chicago, who read the chapters dealing with corporation organization and accounting; L. S. Lyon, Assistant Professor of Business Organization, University of Chicago, and P. E. Curry of the Schenley High School, Pittsburgh, Pennsylvania, who read all the manuscript and gave many helpful suggestions; Glen S. Griffin, who rendered valuable assistance in the preparation of the Laboratory Material in Chapter XLVIII; and Miss May R. Freedman, the author's secretary, who rendered valuable assistance in many ways in the preparation of the manuscript.

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JAMES O. MCKINSEY

New York City, June 1, 1921

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CHAPTER XXXVII

THE NATURE AND CHARACTERISTICS OF THE CORPORATION

Need for Consideration of the Corporate Form

From the viewpoint of this text the primary purpose of accounting is to provide information which will serve as a basis for business management. The management of a business is dependent on its owners or those to whom they have delegated their authority. The ownership of a business may be vested in a sole proprietorship, a partnership, or a corporation. In previous chapters the nature and characteristics of the sole proprietorship and of the partnership have been explained. It is now necessary to consider the nature and characteristics of a corporation and to see the additional information which is necessary for control under this type of organization.

During the past few years the study of the corporate form of organization has become of increasing importance because of the rapidly increasing number of businesses which are owned and controlled by the corporate form of proprietorship. With the enlargement of the scale upon which business is conducted, there has come a demand for such a quantity of capital as can be obtained only by securing contributions from many investors. In order to obtain the desired number of investors, it is necessary to secure the investment of many who have accumulated savings. These investors desire to secure an income from the use of their savings, but desire to avoid being burdened with the active duties of management and to limit their liability for loss at least to the amount of their investment. The corporate form of business organization satisfies these demands, and, as a result, has secured for itself a firm footing in the conduct of commercial and industrial enterprises. The corporation marks a decided improvement over the partnership as an agency for furthering large-scale industry. Consequently, today it represents the most advanced stage of business organization. It is quite important and necessary, therefore, for the student of accounting to acquaint himself with its characteristics and working plans. To explain and illustrate these is the purpose of the present chapter and the chapters immediately following.

The Corporation Defined

Chief Justice Marshall in the well-known Dartmouth College decision defines a corporation as "an artificial being, invisible, intangible, and existing only in contemplation of law." More concretely and comprehensively, it may be defined as "an artificial person, separate from its members, authorized by law, created by charter, and having, in addition to the powers expressed in its charter, the implied powers of a natural person." The foregoing definitions emphasize:

1. That the corporation is an artificial being.
2. That it is a distinct entity, separate from the individuals who are responsible for its creation and operation.
3. That it is created by law and exists only in contemplation of law.
4. That its powers are defined in the charter by which it is created, but that it possesses the implied powers of a natural person.

It will be explained subsequently that the charter of a corporation is the written permission granted by the state for its organization and operation.

Since the corporation possesses the implied powers of a natural person, it can perform business transactions in its own name; it can own and exchange property and can carry on any form of industrial or commercial activity. The possession of these powers imposes on it certain liabilities. Consequently it can be held responsible for its debts and for contribution to the support of the state through taxation.

Comparison of Corporation and Partnership

Those features which particularly differentiate the corporation from the partnership form of organization are:

1. Restrictions upon the authority of members to act for the company.
2. Limited liability of members.
3. Length of life of the organization.

In a partnership each member may act for the firm, and the obligations so incurred are binding upon the firm so long as they are such as an outsider may reasonably expect the partnership to incur. In a corporation no member can transact business for the company unless given specific right to do so as an agent or officer. This provision of corporation law has two desirable results: (1) it protects the corporation from the possible unwise acts of members who might assume authority to act for it; (2) it relieves from the burdens of management those members who do not desire to assume such obligations.

In a partnership each member is liable for the debts of the firm to the extent, if necessary, of his entire estate; in a corporation the liability of each member for the debts of the corporation is limited to the amount of his investment or, in National Banks and in some states, double the amount of his investment in the company.

A partnership is automatically dissolved by the death, withdrawal, bankruptcy or mental incapacity of one of its members; the life of a corporation is practically unlimited because it continues as a perpetual body throughout the life of its charter, and the charter may be renewed without difficulty. As the following quotation very well states, "A corporation is an artificial person, created for preserving in perpetual succession certain rights which, being conferred on natural persons only, would fail in the process of time."

Advantages of the Corporate Form

The advantages of the corporate form have been indicated in the definition of the corporation and its comparison with the partnership form of organization. To summarize, these advantages may be stated as follows:

1. Limited Liability of Members

The private estates of the stockholders can not be held for the debts of the corporation. If the corporation fails, stockholders may lose a portion or all of their investment, but they will not lose more than that amount or an additional amount equal thereto when the double liability applies. This provision of corporation law is of decided importance in the financing of a corporation. Investors are encouraged to invest small amounts in a corporation because of the possibility of larger profits and the absence of a liability in excess of the amount invested.

2. Legal Entity of the Corporation

As stated in the definition, a corporation is an artificial person, an entity separate and distinct from its members. In the capacity of a distinct legal entity, it may act under a corporate name. It may secure, hold, and dispose of property in its corporate capacity. It may enter into contracts with outsiders or with its own stockholders. It may enforce these contracts by suit, if necessary. It has, therefore, a freedom of action which is lacking in the partnership.

3. Holding of Stock Evidenced by Transferable Shares

One of the most attractive advantages of a corporation is the transferable shares issued to its members as evidence of ownership of stock. This makes possible the sale of the member's interest at his pleasure without interfering with the operations of the corporation. It also affords the member the opportunity to use his stock as collateral for a loan in case he desires to borrow funds.

4. Centralization of Control

Through the working organization usually employed by the corporation, the responsibility of management may, if desired, be delegated to one head, which makes possible centralized and unified control and management.

5. Accumulation of Capital

The number of members in a corporation is not limited, and, since under centralization of control a large membership does not become unwieldy, the membership often totals many thousands. This makes it possible to secure a large mass of capital, and this, in turn, makes possible the development of large-scale industry.

Disadvantages of the Corporate Form

There are certain disadvantages which may arise in connection with the corporate form of organization. Some of these are inherent in the corporate form, while others may arise under particular circumstances. Some of the most important of these disadvantages are:

1. Onerous Taxation

As an artificial being created by law, the corporation is subject to taxation by a law-making body. At the present time, corporations are subject to taxation by both the state and national governments. In some cases the taxes imposed on corporations are heavier than those imposed on individuals and partnerships. The excess profits tax of the National Revenue Law of 1918, which is imposed on corporations and not on individuals and partnerships, is thought by many to inflict an unfair burden on the corporation.

2. Filing of Numerous Reports

As a basis of taxation and for purposes of supervision, both state and national governments require reports to be filed by corporations giving information with reference to their operations. Some states require so many detailed reports that their preparation is costly and burdensome. If, however, the corporation maintains proper accounting and statistical records, the preparation of these reports is usually not difficult.

3. Publicity of Corporate Affairs

Through the reports which must be made to the governmental authorities, matters of importance may be made known to the public. Such information, when secured by competitors, may be used to the detriment of the corporation.

4. Stockholders' Limited Liability

Although the limited liability of the stockholders is advantageous to those investing in the stock of the corporation, it may work as a handicap to the corporation when it seeks to borrow funds, since the security of the creditors is limited to the assets of the corporation. In the case of the sole proprietorship and the partnership, on the other hand, the private resources of the members also serve as security. In the case of the well-managed corporation this feature is not of much importance, since its assets will be sufficient to serve as security for its loans.

5. Limitations of Activity

In some states corporations are prohibited from entering certain lines of activity. In all states they are limited to the activities granted to them in their charters. If the charter is properly drawn, it is *usually* possible to carry on the activities in which it is proper for the corporation to engage.

6. Lack of Personal Interest in Management

Unlike the partnership the corporation is not managed directly by the members, but through agents selected by them. This may lead to the placing of the management of the corporation in the hands of those who do not have the personal interest possessed by the members. Usually this danger is eliminated by selecting members of the corporation for its principal officers at least. During the past few years there has been a widespread tendency to have all the employees become stockholders.

The Working Organization of the Corporation

In the corporation the proprietorship is vested in the members of the corporation, who are known as stockholders. The ownership of the stockholders is evidenced by shares of stock. Each share of stock gives the holder thereof the right to one vote in the management of the business. Each member's power, therefore, depends upon the number of shares he holds. Any member, if he desires, may transfer his voting power to another stockholder. By this means one stockholder may exercise authority quite in excess of that to which his own holdings entitle him. In many corporations the membership is large and the stockholders are widely scattered territorially. In this case the stockholders who are unable to attend stockholders' meetings may delegate their authority by power of attorney to an agent who votes their stock; this is referred to as a vote by proxy.

Although the ultimate control of the corporation is vested in its stockholders, they exercise this control only indirectly. They elect at regular intervals, usually annually, a board of directors to whom they delegate the duty of supervising and controlling the activities of the business. The board of directors makes periodic reports to the stockholders. These reports show the results of the operations of the past period and frequently contain recommendations as to plans and policies for the coming period. These recommendations are approved or disapproved by the stockholders at their periodic meetings.

The board of directors delegates the administrative duties to the general officers whom the members of the board select to direct the administrative functions of the business. These officers usually consist of a president, one or more vice-presidents, a secretary and a treasurer. Each vice-president may be in charge of a specific function of the business; for instance, there may be a Vice-President in charge of sales and a Vice-President in charge of production. The President is usually the chief executive officer of the business. The other officers, although they may be selected by the board of directors, act subject to the authority and control of the president. The general officers entrust the execution of the policies of the business to subordinate officers, and these in turn employ the services of assistants.

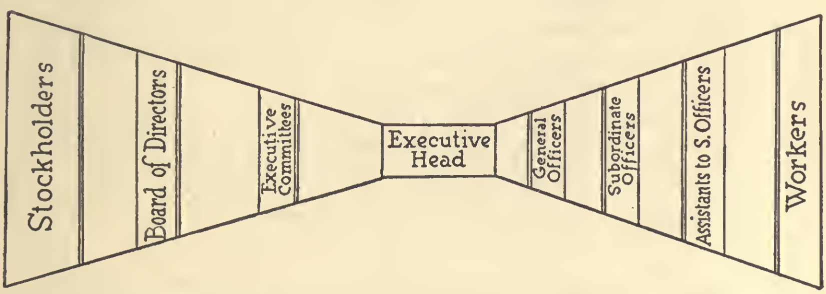

Illustration No. 55—Graphic Form of Organization

This chart shows the narrowing down of the responsibility for management from the numerous stockholders, through the board of directors and executive committees, to the executive head of the business who is usually the president. It then shows how the administrative duties of the chief executive are delegated to the general officers, the subordinate officers, and finally to the assistants of the subordinate officers who are the ones in direct contact with the workers. A very good illustration of this delegation of duties may be found in the case of a manufacturing firm which has a Vice-President in charge of production, and under him a superintendent of the shops, who in turn has subordinate to him the departmental foremen; these foremen direct and control the activities of the workers.

Relation of Accounting to the Corporate Form

From the foregoing chart, the student of accounting can derive some idea of the functioning of records and reports in a system that is as highly specialized as it is usually necessary for the corporation to be. It will be realized that the manager or executive staff can not rely on personal observation and impression when formulating plans and policies. Errors would occur too frequently, and mistakes in judgment in such large affairs are likely to be costly. Intelligent administration through such a form of organization will necessitate information of three kinds:

1. Information which will enable the stockholders, board of directors and the executive staff to determine the general policies of the business and the duties which should be delegated to the subordinate managers.
2. Information which will enable each subordinate manager to perform properly the duties delegated to him and to co-ordinate his activities with those of all the other subordinate managers.
3. Information which will enable the executive staff, the directors, and stockholders to judge as to the efficiency with which the duties delegated to the subordinate officers have been performed.

In order to obtain this information it is necessary to have a comprehensive system of records and reports. It is the purpose of the following chapters to continue the discussion begun in the preceding chapters of the principles which should govern the construction of these records and reports. It may be well to state that the principles governing the construction and operation of the accounting system for a corporation are the same as those governing the construction and operation of the accounting system of a business operating under any other form of proprietorship, and the same principles govern the procurement of the additional information required in connection with the corporation.

QUESTIONS FOR CLASS DISCUSSION

1

In the discussion of those who may invest in a corporation it is stated that there are "many who have accumulated savings and desire to secure an income from the use of their savings, but desire to avoid being burdened with the active duties of management and to limit their liability for loss at least to the amount of their investment."

Give as many instances as you can of those who would fit the foregoing description.

2

James King, thirty years of age, has accumulated savings of $8,000.00. He is employed at present as head of a department in a men's clothing store. He desires to conduct a business of his own. He has two opportunities to invest his savings: (1) in the stock of a large corporation conducting the largest department store in the city; (2) to purchase a half interest in a small but prosperous men's specialty store. Which investment will he probably make? Why?

3

James Brown, seventy years of age, is a retired clothing merchant. He is offered the same investments offered to James King. Which will he probably accept? Why?

4

The corporation has been described as "an artificial person, separate from its members, authorized by law, created by charter, and having in addition to the powers expressed in its charter the implied powers of a natural person."

Show how some local corporation compares with this definition.

5

State the characteristics of the corporation which differentiate it from the partnership. Make a list of investors who would be attracted to invest money in a corporation because of these features.

6

X is advised to buy stock in a corporation which has more than a thousand subscribers to its stock. X is inclined not to accept the offer because he says he plays too small a part in the affairs of the corporation. What arguments can you give to finally persuade him to take stock in the corporation?

7

On the other hand, what arguments might justify X in feeling that the stock in this company is not desirable for his purposes?

8

In considering the advantages and disadvantages of the corporate form of organization, try to see which are the investor's and which are the corporation's.

9

"When the stockholders are widely scattered territorially, and hence are unable to attend stockholders' meetings, they may delegate their authority by power of attorney to an agent who votes their stock."

Give a reason for buying stock, when, as under these circumstances, the buyer does not exercise the voting power.

10

Apply the working organization you think necessary for the proper direction of some incorporated concern with which you are familiar, as lumbering, manufacturing of clothing, or automobile manufacturing.

11

Assume that these men had enough funds to start a partnership for the same purposes as any one of the companies. How would they organize their partnership?

12

If you find any difference in the working organization of the corporation and of the partnership for the same industry, explain the reasons for them. Does this indicate anything with reference to the popularity of the corporate form of organization?

13

H. R. Hitchcock, who lives in Vermont, is a large stockholder and member of the board of directors of a steel corporation which is located in Pittsburgh, Pennsylvania; Johnson, Finn and Wall are members of the executive committee of the Board of Directors, while Baker, Patterson, and Kennedy are managers of the production, purchasing, and sales departments respectively. Explain how these men in their various official capacities are kept informed of what each is doing and how together they are able to manage the affairs of the corporation properly.

14

Compare the need for reports in such a corporation with the need in a partnership and in a sole proprietorship.

15

The Balance Sheet of the King Manufacturing Company, as prepared by its bookkeeper, December 31, 1920, is as follows:

THE KING MANUFACTURING CO.

Balance Sheet, December 31, 1920

Current Assets	$200,000.00	Current Liabilities	$80,000.00
Fixed Assets	300,000.00	Fixed Liabilities	120,000.00
		Capital Stock	300,000.00
	500,000.00		500,000.00

The corporation is unable to pay its creditors and is forced into the hands of a receiver. In liquidation the current and fixed assets realize $150,000.00. James King owns one-half of the capital stock of the company. What is his liability to the creditors of the company?

If the King Manufacturing Company were a partnership, owned by James King and John Brown, equal partners, and liquidated in the same manner and the same results, what would the liability of Mr. King be to the creditors:

1. If Brown has no property outside of what he has invested in the partnership?
2. If Brown has sufficient property to meet all of his obligations?

CHAPTER XXXVIII

PROPRIETORSHIP IN THE CORPORATION

Proprietorship Vested in Stockholders

In a single proprietorship the business is owned by one person who exercises full control. In a partnership the business is owned by two or more partners, each one possessing the right to act for the firm. Proprietorship is vested in the partners, each having a separate liability and a separate power to act as an agent of the partnership. In a corporation the business belongs to all the stockholders, but no one possesses the right to act independently of the others. All must act as a body, as an "artificial person." All property is held in the name of the corporation and not in the name of the members. The control of the capital of the corporation may be entrusted to one individual, acting in the capacity of président or manager under the supervision of a group of individuals known as the board of directors, but ownership does not rest with that individual or group of individuals, but with the corporation itself. In the corporation the proprietorship is therefore vested in the stockholders acting as a "legal entity."

Proprietorship of Corporation Divided into Shares

The ownership of the stockholders in the proprietorship of the corporation is measured in terms of "shares." At the time of its formation the corporation receives a charter from the state which grants it authority to issue a certain amount of capital stock. This stock is divided into equal shares. In some cases the corporation may be authorized to issue two or more kinds of stock and the shares of each kind may be of a different denomination, but all the shares of any one kind of stock must be of the same value. The value of the share of stock as stated in the charter, is known as its "par value." The par value of the stock is determined by dividing the total capital stock by the number of shares to be issued. If the total capital stock of a corporation is $50,000.00, divided into 500 shares, the par value of the stock is $100.00. In practice the reverse process is usually followed: the par value is first determined, and this is divided into the total capital stock to determine the number of shares to be issued. The par value of stock is usually $100.00, although it may be of any par value desired, unless the law of the state, where the incorporation takes place, imposes limitations. Some companies, in order to encourage small investors, issue shares the par value of which is $5.00, $10.00, or $50.00, but in the majority of cases the par value is $100.00.

During recent years the laws of some states have authorized the issuance of stock of no par value. A number of large corporations have issued this kind of stock during the past two years. Under this plan, the capital stock of the corporation is divided into a certain number of shares, but no value is stated for each share. In order to determine its value, it is necessary to divide the proprietorship of the corporation which belongs to the stock of no par value by the total number of shares issued. It is claimed that the employment of stock of no par value tends to prevent deception of the stockholders. When stock of a definite par value, for instance, $100.00, is issued, there is a tendency on the part of stockholders who are not skilled in finance to consider it worth $100.00. As a matter of fact, its value may be very much above or below this amount. The value of the assets of the corporation is constantly fluctuating, and these fluctuations are reflected in the proprietorship of the corporation with the consequent effect on the value of the capital stock of the business. Even though the par value as stated at the time of organization is the same as its real value, it will probably never be the same after the corporation commences to operate. If stock of no par value is used, it is necessary for the investor to determine its value by dividing the proprietorship of the corporation by the total shares issued. This not only may prevent deception, but it may also cause the investor to know more about the business in which he invests his funds.

Ownership Evidenced by Stock Certificates

Each stockholder receives a certificate of stock which grants title to the number of shares which he owns. This certificate declares the person named therein to be a shareholder in the corporation, and grants title to the stock stipulated on the face of the certificate. Further evidence of ownership of the stock is shown by the record on the books of the corporation.

When a stockholder sells his stock, he fills in a blank form on the certificate, which authorizes the corporation to transfer his interest in the corporation, or that part of his interest which is stated, to the person whom he designates. The purchaser forwards the old certificate to the company who cancels it, issues a new certificate to the stockholder and makes the proper entries on its record to show the transfer. The method by which the interests of stockholders are transferred serves to emphasize the continuity of the organization of the corporation. Stock certificates may be sold or otherwise transferred at the option of the owner. The personnel of the company may thus be constantly changing, but the existence or operation of the corporation is not affected thereby.

Loss or destruction of a certificate does not affect ownership or the performance of any of the rights of a stockholder. Provision is usually made for the issue of a new certificate in such a case. The contents of the certificate will be discussed and illustrated in connection with the stock certificate book in a subsequent chapter.

Classification of Stock

All the stock issued by a corporation does not necessarily carry the same privileges and consequently may not be equally desirable as an investment. There are several bases of differentiation between shares of stock, such as distribution of profits, distribution of assets in case of dissolution, accumulation of dividends, etc. Based on these distinctions, stock may be variously classified. For the purpose of the present discussion, it will be sufficient to classify stock as:

1. Common.
2. Preferred.
    a. Participating or nonparticipating.
    b. Cumulative or noncumulative.

Common stock is that which has no financial preference over any other stock of the company. It confers upon its holders the right to participate in the management of the affairs of the company through the board of directors who are elected by the stockholders at the periodic meetings. Although the common stock has no *financial* preference it often has preference as to voting power. In some cases it is only the common stock which has the right to vote. It must not be inferred from the statement that other stock has a financial preference over the common stock, or that the common stock is necessarily of less value than the other stock issued by the corporation. In some cases, it is of more value than the stock having certain preferences, as will be explained later.

Preferred stock is that which has some kind of preference over the ordinary or common stock. The privileges accompanying preferred stock are not uniform, but there is one point of distinction which is applicable to all preferred stock, namely, preference as to distribution of profits. In order to understand the effect of this preference, it is necessary to consider briefly the method of distributing the profits in a corporation.

As a rule the profits of a corporation are divided yearly, although a quarterly or semi-annual distribution may be made. Whenever profits are divided among the stockholders, a *dividend* is said to be declared. Dividends can be declared only by the board of directors and only by them when there are undivided profits to be distributed. A dividend is stated as a certain percentage of the par value of the stock on which it is paid. To illustrate: if the capital stock of a company is $100,000.00, and the annual profits distributed are $8,000.00 each share of stock of a par value of $100.00 will receive an eight per cent dividend. Usually all of the profits of the corporation are not distributed as dividends. Some part of the profits is retained in the business to provide for expansion and for possible losses which may occur in later years.

To make their stock attractive to investors, companies often issue a portion of their stock with a preference as to dividends. This means that whenever profits are distributed, the preferred stockholders receive their share first. If the profits are insufficient to satisfy more than the claims of the preferred stockholders, the common stockholders receive nothing. For example: a company, capitalized at $100,000.00, has issued 500 shares of eight per cent preferred stock and 500 shares of common stock, each with a par value of $100.00. This means that in the distribution of dividends, the holders of these 500 shares of preferred stock would be paid an eight per cent dividend before anything could be paid to the common stockholders. If the profit for the year is $7,500.00 and the directors decide to distribute this amount to the stockholders, the owners of the preferred stock would receive a dividend of eight per cent or $4,000.00, leaving only $2,500.00 to be distributed among the common stockholders, who would thus get a dividend of only five per cent.

In the preceding discussion of common stock, the statement was made that this class of stock is sometimes more desirable than the preferred stock. This may be true if the holders of preferred stock are forbidden to share in the dividends in excess of the amount of their preference. To illustrate: it may be assumed that a company is capitalized at $1,000,000.00, 5,000 shares of which are common stock and 5,000 shares are preferred at eight per cent, the latter being barred from participation in profits above the preferred rate. The profit for the year, $100,000.00, is distributed among the stockholders. Of this amount, $40,000.00 is required to pay the dividends on preferred stock. The balance, $60,000.00, is distributed among the common stockholders, with the result that this class of stock receives twelve per cent, a greater dividend than that allotted to the preferred stock. Holders of common stock can not, however, secure this extra profit unless the charter stipulates that preferred stockholders may not share profits in excess of the fixed rate. The incorporators of a company often embody such a provision in the charter and then retain all the common stock, securing for themselves all the possibilities of a large income in case the company makes large profits. Because of the privilege sometimes taken advantage of by the organizers of a corporation, it is possible to divide preferred stock into *participating* and *nonparticipating* stock. When the charter of a corporation expressly stipulates that preferred stock is not to share in the profits above the preferred rate, this stock may be said to be nonparticipating. Otherwise it is understood to be participating.

Sometimes the preferred stock is given a preference with reference to the distribution of assets. In case of the dissolution of a corporation, its net assets may not be sufficient to repay the investment of all the stockholders. In this event, payment will be made first upon that stock which has been issued with a priority of claim on assets.

Again, preferred stock may be either *cumulative* or *noncumulative*. If it be cumulative, the company is under obligation to pay the full amount of dividends named in the certificate. If this can not be paid out of the earnings of one year, the claim still stands against future earnings. If the stock be noncumulative, the stockholder must be satisfied with whatever profit the company makes, even though it be less than the fixed rate. In this case, the stockholder has no claim on future earnings. To illustrate: it may be assumed that A owns 1,000 shares of eight per cent preferred cumulative stock which would ordinarily net him an income of $8,000.00. If the company's earnings should at any time fall to a point where it could pay only $5,000.00 of the $8,000.00 due, the remaining $3,000.00 would be held against the company for payment the next year, or at such time as the earnings would be sufficient to enable it to pay the $3,000.00. On the other hand, if A's stock were noncumulative, he would have to be satisfied with the $5,000.00, and he would have no claim on future earnings.

Method of Showing Proprietorship

In a business owned by one individual, the proprietorship is vested in that one person, and, in making the Balance Sheet, his name is used to show his ownership of the capital invested, as in the following form:

C. S. KENWORTHY
Balance Sheet, January 1, 1921

Assets		Liabilities	
Cash	$2,250.00	Notes Payable	$2,000.00
Notes Receivable	1,000.00	Accounts Payable	2,000.00
Accounts Receivable	5,000.00	Accrued Salaries	250.00
Merchandise	15,000.00	Mortgages Payable	20,000.00
Furniture and Fixtures	1,000.00		
Land and Building	50,000.00	Total Liabilities	24,250.00
		Proprietorship	
		C. S. Kenworthy, Capital	50,000.00
Total Assets	74,250.00	Total Liabilities and Proprietorship	74,250.00

When a profit or a loss occurs in such a business, the capital shown in the Balance Sheet is increased or decreased accordingly, unless the owner withdraws all the profit or makes up the deficit resulting from the loss.

In the Balance Sheet of a partnership, the proprietorship is shown in the same manner as on the Balance Sheet of a single proprietorship, except that each partner's interest is shown separately as in the following form:

WILSON & MEIERS
Balance Sheet, January 1, 1921

Assets		Liabilities	
Cash	$5,000.00	Accounts Payable	$2,000.00
Accounts Receivable	10,000.00	Notes Payable	10,000.00
Notes Receivable	5,000.00	Accrued Items	2,000.00
Merchandise	20,000.00	Mortgages Payable	30,000.00
Delivery Equipment	2,000.00		
Furniture and Fixtures	2,000.00	Total Liabilities	44,000.00
Land and Building	100,000.00	**Proprietorship**	
		E. C. Wilson, Capital	60,000.00
		F. H. Meiers, Capital	40,000.00
		Total Proprietorship	100,000.00
Total Assets	144,000.00	Total Liabilities and Proprietorship	144,000.00

A profit or loss in a partnership would be evidenced by changes in the amount of capital of each proprietor, as is the case in the single proprietorship.

As stated in the first section of this chapter, proprietorship in a corporation is vested in the stockholders considered collectively. Therefore the proprietorship is not shown on the Balance Sheet in the manner in which it is shown in the case of the sole proprietorship and the partnership. The interest of each stockholder is not listed separately on the Balance Sheet, but the par value of all the stock issued to stockholders is entered as one item under the heading of Capital Stock. If the proprietorship is greater than that represented by the capital stock, it is shown as a separate item under the title "Surplus." The following form illustrates the showing of proprietorship in a corporation:

NORTHWESTERN MILLING COMPANY

Balance Sheet, January 1, 1921

Assets		Liabilities	
Cash	$5,000.00	Notes Payable	$10,000.00
Notes Receivable	5,000.00	Accounts Payable	3,000.00
Accounts Receivable	12,000.00	Accrued Items	1,000.00
Merchandise	20,000.00	Mortgages Payable	50,000.00
Furniture and Fixtures	2,000.00		
Delivery Equipment	5,000.00	Total Liabilities	64,000.00
Machinery and Tools	75,000.00	**Proprietorship**	
Buildings	140,000.00		
Land	25,000.00	Capital Stock	200,000.00
		Surplus	25,000.00
		Total Proprietorship	225,000.00
		Total Liabilities and	
Total Assets	289,000.00	Proprietorship	289,000.00

If the profit is greater than the amount paid as dividends, the excess is added to the surplus; and conversely, if a loss has been sustained, Surplus account will be decreased accordingly. This emphasizes the point that has been mentioned before, that capital represented by the par value of the shares remains unchanged, but the actual value is constantly changing.

As a protection to creditors, the law forbids the distribution of the original capital among the stockholders, which accounts for the method just shown of keeping the capital stock at a fixed amount. If, for any reason, it is deemed necessary to change the capital stock, such a change can be effected only by securing a revision of the charter. Unless this is done, all changes in proprietorship must be shown by an increase or decrease of surplus.

Value of Stock

The value of the stock of a corporation is always spoken of in terms of a share. It may have four different values: par value, market value, book value, and real value.

Par Value, as explained, is the value assigned to each share when the charter is issued, and is stated on the certificate of stock. Par value and face value are sometimes used as synonymous.

Book Value. In a preceding discussion it was explained that capital stock does not always represent the entire proprietorship. There will usually be a surplus, which added to the capital stock, equals the proprietorship. While the actual proprietorship changes, the number of shares remains fixed; hence it is clear that the value of each share, measured in amount of proprietorship, or net worth, will be different from the par or face value. Thus, if the books show a surplus of $25,000.00 and a capital stock of $100,000.00 (1,000 shares at $100.00 each, par) the value of each share is $125.00. This is called book value. Book value, therefore, may be defined as the value of stock as shown by the books, or proprietorship (net worth) divided by the number of shares.

Market Value. When shares are bought and sold, the price does not always conform either to the book value or to the par value. Thus, in the case just cited, if a stockholder were offering the stock on the market, he probably would not receive exactly $125.00 for each share. If the company were making big profits and could declare large dividends, the stockholder could probably get more than $125.00, say $127.50 or $130.00. This is termed selling at a premium. If conditions were the reverse, he would probably have to sell for less, or at a discount. This value, placed upon the stock in the stock market or wherever stocks are exchanged, is called the market value.

Real Value. If a company is dissolving voluntarily or if it be compelled to dissolve, its assets would have to be liquidated, or converted into cash within a limited time. The price obtained for its assets through this voluntary or forced sale would probably be somewhat less than the amount at which the assets are recorded on the books. The disposal of the assets for less than book value will decrease the proprietorship with a consequent decrease in the book value of the capital stock. The value which would be obtained for the stock under these conditions is known as the real or liquidation value. It will be the same as the book value if the book value of the assets be realized.

QUESTIONS FOR CLASS DISCUSSION

1

X and Y are members of a partnership. Later the partnership is incorporated. Explain what changes, if any, occur with reference to the ownership of the business.

2

Explain the part that the possession of stock plays in X's and Y's ownership in the corporation.

3

Benedict buys 100 shares of stock valued at $100.00 par. He pays $94.50 for each share. How is it possible to have these two values? Which is the more important?

4

Peters, a friend of Benedict, buys "no par value" stock of another corporation at $98.00 per share. How is this value obtained?

5

What information would you need in order to determine whether Peters' or Benedict's stock is the better investment?

6

Seven certificates of stock representing A. R. Green's interest in a corporation are stolen. What protection has Green that another person will not use his certificates? What protection has the corporation from the person holding the certificates who presumably will represent himself in Green's place?

7

Compare the continuity of life in a partnership and in a corporation. Which form of organization, as far as this consideration is concerned, is the more desirable? Why?

8

"All the stock issued by a corporation does not necessarily carry the same privileges, and, consequently, may not be equally desirable as an investment." List, according to privileges, the kinds of stock you know.

9

What elements in these various kinds of privileges make for desirability or undesirability?

10

A company is capitalized at $2,500,000.00, 10,000 shares of which are noncumulative preferred stock at seven per cent and 15,000 shares are common. The par value of both the common and the preferred stock is $100.00. The first year the profit of the corporation is $60,000.00; the second year, $100,000.00; and the third year, $125,000.00. The board of directors agrees to reserve ten per cent of the profits of each year and to distribute the remainder as dividends. Which stock secures the greater rate of return? Show the relation of dividends on common stock to profits. For what reasons do you think investors are led to buy common stock? Why do some buy preferred stock?

11

What reasons can you assign for not listing each stockholder's interest separately in the proprietorship section of the Balance Sheet?

12

"As a protection to creditors, the law forbids the distribution of the original capital among the stockholders." How does this regulation of the law protect the creditors?

13

Can you think of any service which this regulation might render to the corporation itself?

14

Compare the methods of distributing profits in a sole proprietorship, in a partnership, and in a corporation. Give your answer with particular reference to the purpose of the surplus in a corporation.

15

Explain the circumstances under which an investor would be interested in knowing (a) par value of stock, (b) book value, (c) market value, (d) real value. Would all these values be needed to know at what price to buy the stock?

16

How are the quotations for stock listed in the financial section of the newspaper obtained and what value do the quotations represent?

LABORATORY MATERIAL

Exercise No. 96

1. The A Company incorporates with a capital stock of $250,000.00 (5,000 shares at $50.00). Of these, 3,000 shares are noncumulative preferred, bearing a dividend rate of eight per cent; the remaining 2,000 shares are common stock. The charter forbids preferred stock sharing dividends above the fixed rate. The first year's net earnings are $10,000.00, all of which is distributed. What part of this should the preferred stockholders receive? The common stockholders?

2. The second year's profits are $25,000.00, all of which is voted as dividends. Distribute this properly.

3. Make the proper distribution for each year, assuming the preferred stock to be cumulative.

4. Make such changes in your answers as would be necessary if there were no stipulation in the charter preventing preferred stock from sharing in profits above eight per cent.

5. If the stock had been issued at no par value, what additional information would be needed in the solution of the foregoing problem? How would a prospective investor secure this information?

6. What person or persons would decide whether all profits should be distributed as dividends? For what other purposes might profits be used? What factors would influence such a decision?

Exercise No. 97

1. Using the Balance Sheet of C. S. Kenworthy, given in this chapter, assume that during the year 1921 his profit is $1,700.00, and this profit is left in the business for improvements and additions. Prepare a Balance Sheet as of December 31, 1921, showing his increased proprietorship, and making such changes in the assets and liabilities as would be reasonable.

2. Using the same Balance Sheet for January 1, 1921, assume that the owner has operated during the year at a loss of $1,000.00. Prepare a Balance Sheet as of December 31, 1921, making such changes in assets and liabilities as might result from a loss of that amount.

3. Using the Balance Sheet of the Northwestern Milling Company given in this chapter, assume that the profit for the year

1921 is $17,500.00. Prepare a Balance Sheet as of December 31, 1921, showing the changes in the assets and liabilities which might result from such operations, and, assuming that no dividend is declared, show proprietorship properly.

4. Prepare a Balance Sheet for the Northwestern Milling Company as of December 31, 1921, assuming a loss of $5,000.00 for the year 1921.

Exercise No. 98

A owns 200 shares of stock in the Adams Manufacturing Company. The books of this company show capital stock of $500,000.00 (5,000 shares) and a surplus of $100,000.00. What is the par value of A's stock? The book value?

A sells 100 shares of his stock to B, receiving therefor $11,875.00. What was the market quotation on this stock at the time of the sale, assuming that A sold at market price? If this company were forced to liquidate, about what should you expect the real value of their stock to be, basing your judgment upon the sale of A's stock? Would it be likely to exceed the book value? The par value?

What steps should be taken by B, the purchaser of A's stock, to secure a certificate of title? What changes should be made on the books of corporation?

CHAPTER XXXIX

THE FORMATION AND OPERATION OF A CORPORATION

Formation of a Corporation

The definition of a corporation given in a preceding chapter states that it is "authorized by law, and created by charter." Since the corporation is created through the permission and under the supervision of governmental authority, it is fair to assume that certain legal formalities must be met. Although these legal requirements vary somewhat in the different states, it is possible to indicate their general nature.

In the early history of the development of the corporate form, special action by the state legislature was required for the formation of each corporation. With the rapidly increasing number of applications for incorporation, this method soon grew burdensome, and in its place were substituted general laws or enabling acts, setting forth the provisions under which corporations might be formed. Under present laws, state control over incorporations is usually delegated to the Secretary of State and the State Treasurer. Application for permission to incorporate must be submitted to the Secretary of State, who acts for the state in passing favorably or unfavorably upon the legality of the proposed organization. The duties delegated to the State Treasurer are those which have to do with the collection of organization fees and taxes. In some states the application for incorporation is addressed to the Governor of the state and must be approved by him. In a few states there is a Commissioner of Corporation or an officer bearing a similar title, who has the authority with reference to corporations which is usually vested in the Secretary of State.

The process of organization varies in different states, but the method which is becoming typical involves two steps: (a) permission to solicit subscriptions; and (b) permission to begin business activities. The first may be secured by filing a request with the Secretary of State or other designated officer, signed by at least three persons who are termed incorporators, seeking the privilege of selling stock to raise the necessary capital. After the amount of capital required by law has been secured and a tentative organization effected, a report must be made to the state authorities, who thereupon grant the charter or certificate of incorporation, if all requirements have been met. Then, if all taxes and fees have been paid, regular activities may commence. In some states it is not necessary to obtain permission from the state in order to solicit subscriptions. In such cases, subscriptions may be obtained, and all or part of the capital may be paid in before application for a charter is made. The law usually stipulates what the application for incorporation must contain. In many cases the state merely approves the application for incorporation, and it then becomes the charter of the corporation.

The corporation must conform to the laws relating to incorporation. It is also subject to that general control which any state exercises over all individuals and business organizations, through its constitution and such statutes as relate to business activities in general. In most states certain laws have been passed which relate to corporations only. Frequently it is necessary or advantageous for a company to operate in more than one state. In such a case, the corporation must conform to the regulations of the Interstate Commerce Commission and to the corporation laws of all states into which it extends its business.

Certificate of Incorporation

The charter of a corporation states the powers which it possesses and the limitations under which it must operate. As previously explained, the laws of the state specify the form of application which a proposed corporation must submit, and if this application is approved, it becomes, in many states, the charter of the corporation. The provisions of law governing the form of the application for incorporation are quite important, since they must be strictly complied with in order to obtain the approval of the state, and also since the application, when approved, frequently becomes the charter. These provisions vary in different states, but in general they include all the important features peculiar to a corporation, such as the name, purpose, duration, location, capitalization, etc.

In order to show more clearly the nature of the data which may be required in the application for incorporation, the following quotation from the statutes of the State of Illinois is given:

"A corporation may be formed for any lawful purpose (except banking, insurance, real estate brokerage, operation of railroads, and loaning money) whenever three or more persons, citizens of the United States, at least one of whom shall be a citizen of Illinois, shall sign, seal, and acknowledge a statement of incorporation setting forth:

1. "Names and post office addresses of the incorporators.

2. "Name of the proposed incorporation.

3. "A clear and definite statement of the object or objects for which it is formed.

4. "The period of duration.

5. "Location of the principal office in this State, giving town or city, street and number, if any.

6. "Number of shares into which the capital stock is to be divided, whether all or part of same shall have par value, and if so, the par value thereof, which shall not be less than $5.00 nor more than $100.00 a share, and whether all or part of the same shall have no par value, and if there is to be more than one class of stock created, a description of different classes, number of shares of each, and relative rights, interests and preferences each class shall represent.

7. "Names and addresses (give street and number) of the original subscribers to the capital stock and amount subscribed by each.

8. "Total amount of authorized capital stock.

9. "Amount of such stock it is proposed to issue at once (which shall not be less than $1,000.00).

10. "The payment of at least one-half of the capital stock having a par value and of not less than $5.00 per share for each share of capital stock having no par value, which it is proposed to issue at once, with a description of the nature and value of the property, if any, paid for such capital stock.

11. "Number, names, and post office addresses of directors by street and number, at least one of whom shall be a resident of this State, and the term for which elected.

12. "Any other provisions not inconsistent with law, for the regulation of the business and the conduct of affairs of the corporation, and any provisions creating, defining, limiting, and regulating the powers

of the corporation, the directors and the stockholders, or any class or classes of stockholders.''

The statutes of the State of New York provide:

''Except as provided in section 2a of this chapter, three or more persons may become a stock corporation for any lawful business purpose or purposes, by making, signing, acknowledging, and filing a certificate which will contain:

1. ''The name of the proposed corporation.
2. ''The purpose or purposes for which it is to be formed.
3. ''The amount of capital stock, and if any portion be preferred stock, the preferences thereof.
4. ''The number of shares of which the capital stock shall consist, the value of which shall not be less than five nor more than one hundred dollars, and the amount of capital not less than five hundred dollars, with which the said corporation will begin business. (By amendment of the original law, stock may not be issued which has no par value.)
5. ''The city, village, or town in which its principal business office is to be located. If it is to be located in the City of New York, the borough there in which it is to be located.
6. ''Its contemplated duration. This may be made perpetual.
7. ''The number of its directors, not less than three.
8. ''The names and post office addresses of the directors for the first year.
9. ''The names and post office addresses of the subscribers to the certificate of incorporation and the number of shares in the corporation subscribed by each.''

The certificate must be signed by the three or more persons who make application for the charter and their signatures acknowledged by a Notary Public or other designated official.

The Opening Entries

When the corporation receives its charter, it is then necessary to open the books of record. The incorporators or organizers of the corporation will, in most cases, have performed some transactions prior to the granting of the charter and should keep a record of them, but these transactions are not the transactions of the corporation; therefore no entries should be made on the records of the corporation until the charter is obtained.

The opening entries of a corporation are similar to those of other types of business organizations in that they show the assets that are contributed toward the organization, and the liabilities, if any, that the corporation is to assume. The proprietorship of the corporation at the time of its formation is shown as one item, and is not credited to the individual members of the organization as in the case of a partnership.

The simplest case which can be taken by way of illustration is that of a corporation whose authorized capital stock has all been subscribed and paid for in cash. Assuming that the authorized capital stock of the corporation is $500,000.00, and that it is all common stock, a memorandum entry would be made in the general journal as follows:

THE FARWELL MANUFACTURING COMPANY

January 1, 1921

	The Farwell Manufacturing Company, incorporated under the laws of the State of New York, with an authorized capital stock of five hundred thousand dollars ($500,000.00) divided into five thousand (5,000) shares of common stock, of the par value of $100.00 a share, with express and implied power to conduct a general manufacturing business.				

The sale of the capital stock would be recorded as follows:

	Cash	500,000			
	Capital Stock			500,000	
	For issue of capital stock in consideration of cash subscriptions to 5,000 shares.				

The ledger accounts for this entry would be simply the Cash account showing a debit of $500,000.00 and the Capital Stock account showing a credit of $500,000.00.

Note: For convenience in illustrating, all the entries given in connection with the opening entries of a corporation will be shown in journal form. It will be realized that some of these in practice are made in the cash records.

If some subscriptions were paid with property, such as land, buildings, machinery, tools, etc., to be retained for use in the business, the opening entry would show the various assets as follows:

	Cash	300,000	
	Machinery	100,000	
	Buildings	70,000	
	Land	30,000	
	Capital Stock		
	For issue of capital stock in consideration of cash subscriptions to 3,000 shares and of property, plant and sundry assets, acquired from J. H. Long as per contract on file.		300,000

It is not necessary to give the names of the stockholders in the explanation since full data concerning their subscriptions will be in the Minute Book, also in the stock ledger and stock certificate book which will be discussed in the next chapter.

In the foregoing illustration it has been assumed that all the stock authorized has been subscribed and issued. In many cases this is not true. For instance, the charter of the J. A. Cook Company may authorize the issuance of stock to the amount of $500,000.00, and the stockholders or board of directors may vote to sell only $400,000.00 at the time of the organization, retaining the remaining $100,000.00 for sale at a later time when more funds may be needed. It is desirable to have the charter authorize the issuance of more stock than is to be issued at the time of the formation of the corporation. This relieves the company of the necessity of applying for a change of charter at such times as it may wish to increase its capital. For example, if the charter of the J. A. Cook Company authorizes an issue of only $400,000.00 and the company at some later time needs $100,000.00 additional capital, it will have to go through the formalities of having its charter changed to read $500,000.00. However, if the charter authorizes the issuance of $500,000.00 and only $400,000.00 is issued, the remaining $100,000.00 can be issued at any time desired without consulting the state authorities. Usually the consent of the majority and in some cases the consent of two-thirds or three-fourths of the stockholders must be obtained before the charter can be changed, and this adds to the difficulty of obtaining an increase in the stock.

Assuming in the case cited that $100,000.00 of the stock is not issued at the time of organization, the opening entries may be made in two ways. The first method is as follows:

		Unissued Capital Stock Capital Stock The J. A. Cook Co. is incorporated with an authorized capital stock of $500,000.00.	500,000	500,000
		Cash Unissued Capital Stock To record the sale and issue of 4,000 shares of stock for cash.	400,000	400,000

The ledger accounts resulting from these entries would be:

Capital Stock

							500,000

Unissued Capital Stock

			500,000				400,000

Cash

			400,000				

In making a Balance Sheet the debit balance of the Unissued Capital Stock account would not be treated as an asset, but would be shown as a deduction from the Capital Stock credit of $500,000.00, as follows:

Capital Stock Authorized	500,000	
Capital Stock Unissued	100,000	
Capital Stock Outstanding		400,000

The second method of recording these transactions would be as follows:

		Cash Capital Stock (Appropriate Explanation)	400,000	400,000

By this method the unissued capital stock is not shown on the books and the Capital Stock account shows only the amount of stock which has been issued. On the Balance Sheet the authorized, the unissued, and the outstanding capital stock should be shown the same as by the first method, since this is information of importance to those who are studying the financial condition of the business as reflected by its Balance Sheet.

Unissued capital stock should not be confused with treasury stock, which will be discussed in the following chapter. Unissued capital stock is that which has never been sold, or which has been sold on installments and never paid in full, and consequently has not been issued. Treasury stock is that which has been sold, paid for in full, and duly certified, but in some way has come again into the possession of the company. Treasury stock may be obtained by purchase, or it may be donated to the company by the stockholders.

The opening entries given in the preceding discussion are the simplest forms which can be used for recording the transactions performed. Some accountants prefer that the opening entries indicate fully the various steps involved in the selling of the capital stock and the issuance thereof. To do this, it is necessary to set up at least two additional accounts. To take the same illustration used above, the entries may be made as follows:

		Unissued Capital Stock Capital Stock To record the 5,000 shares of stock authorized by the charter.	500,000		 500,000
		Subscribers Subscriptions To record the subscriptions to 4,000 shares of stock.	400,000		 400,000
		Cash Subscribers To record the payment by subscribers for stock subscribed.	400,000		 400,000
		Subscriptions Unissued Capital Stock To record issue of stock to subscribers.	400,000		 400,000

Since the debits and credits to the Subscribers and the Subscriptions accounts are equal, the final results shown on the ledger are the same as when these accounts are not used.

Changing from a Partnership to a Corporation

From a legal point of view, changing from a partnership to a corporation necessitates (a) the dissolution of the partnership, which would probably be effected by an agreement of the partners, and (b) the fulfillment of all requirements imposed by the state upon the incorporators, which would be evidenced by a charter granted by the state. From an accounting point of view, two things are necessary: (a) to close the books of the partnership according to the partnership agreement, and (b) to open the books of the corporation in compliance with the provisions of the charter.

To make these processes more concrete, it may be assumed that R. C. Manning and A. L. Manning are partners in the manufacturing business of R. C. Manning & Son, and have associated themselves with M. H. Strickland and W. J. Hamilton to form a corporation, known as the Manning Manufacturing Company. The corporation is to have an authorized capital stock of $500,000.00 of which $400,000.00 is to be common stock and $100,000.00 preferred stock. The corporation is to take over the assets and assume the liabilities of R. C. Manning & Son at book value and to issue to R. C. Manning and A. L. Manning common stock to the amount of their net worth in payment for their business. M. H. Strickland is to contribute $75,000.00 of manufacturing supplies and to receive payment in common stock. W. J. Hamilton is to purchase $50,000.00 worth of common stock for cash. The preferred stock is to be sold for cash.

The Balance Sheet of R. C. Manning & Son on the date of transfer is as follows:

R. C. MANNING & SON
Balance Sheet

Assets		Liabilities	
Cash	$10,000.00	Accounts Payable	$30,000.00
Accounts Receivable	40,000.00	Notes Payable	40,000.00
Merchandise	60,000.00	Mortgages Payable	50,000.00
Office Equipment	15,000.00	Total Liabilities	120,000.00
Delivery Equipment	20,000.00		
Machinery	100,000.00		
Buildings	50,000.00	**Proprietorship**	
Land	25,000.00		
		R. C. Manning, Capital	120,000.00
		A. L. Manning, Capital	80,000.00
		Total Proprietorship	200,000.00
Total Assets	320,000.00	Total Liabilities and Proprietorship	320,000.00

To close the books of R. C. Manning & Son the following entries are necessary:

	Manning Manufacturing Company	320,000	
	Cash		10,000
	Accounts Receivable		40,000
	Merchandise		60,000
	Office Equipment		15,000
	Delivery Equipment		20,000
	Machinery		100,000
	Buildings		50,000
	Land		25,000
	To record the purchase of the assets of the business by the Manning Manufacturing Company.		
	Accounts Payable	30,000	
	Notes Payable	40,000	
	Mortgages Payable	50,000	
	Manning Manufacturing Company		120,000
	To record the assumption of the liabilities of the business by the Manning Manufacturing Company.		
	Stock, Manning Manufacturing Company	200,000	
	Manning Manufacturing Company		200,000
	To record the receipt of capital stock from the Manning Manufacturing Company in payment of the amount due from them.		
	R. C. Manning, Capital	120,000	
	A. L. Manning, Capital	80,000	
	Stock, Manning Manufacturing Company		200,000
	To record distribution of stock of the Manning Manufacturing Company to the partners.		

When these items are posted, it will be noted that each asset account will be closed by an entry on the credit side, and each liability and proprietorship account will be closed by an entry on the debit side. The books are thus completely closed.

To open the books of the corporation, account will have to be taken not only of the assets and liabilities received from R. C. Manning and A. L. Manning, but also of the manufacturing supplies amounting to $75,000.00 invested by M. H. Strickland and the cash amounting to $50,000.00 invested by W. J. Hamilton. These four persons are the incorporators, and retain all the common stock which is issued, amounting to $325,000.00. The remainder of the common stock is unissued. The preferred stock is sold and paid for in cash.

The first entry of the new corporation will show the authorized issue of capital stock.

	Unissued Capital Stock, Common	400,000	
	Unissued Capital Stock, Preferred	100,000	
	Capital Stock, Common		400,000
	Capital Stock, Preferred		100,000
	To record the authorized capital stock.		

The next entry will show the subscriptions to common stock.

	Subscribers to Common Stock	325,000	
	Unissued Capital Stock, Common		325,000
	To record the subscriptions to the common stock.		

It is then necessary to record the receipt of the assets and liabilities of R. C. Manning & Son and stock given in payment.

	Cash	10,000	
	Accounts Receivable	40,000	
	Merchandise	60,000	
	Office Equipment	15,000	
	Delivery Equipment	20,000	
	Machinery	100,000	
	Buildings	50,000	
	Land	25,000	
	R. C. Manning & Son, Vendors		320,000
	To record purchase of assets of R. C. Manning & Son.		
	R. C. Manning & Son, Vendors	120,000	
	Accounts Payable		30,000
	Notes Payable		40,000
	Mortgages Payable		50,000
	To record the liabilities assumed from R. C. Manning & Son.		
	R. C. Manning & Son, Vendors	200,000	
	Subscribers to Common Stock		200,000
	To show payment of subscription of R. C. Manning & Son by transfer of their business.		

Similar entries will show Strickland's and Hamilton's investments and will effect the balances of their subscription accounts, as follows:

	Manufacturing Supplies	75,000	
	Subscribers to Common Stock		75,000
	Cash	50,000	
	Subscribers to Common Stock		50,000
	To show full payment by M. H. Strickland and W. J. Hamilton for stock issued to them.		

A final entry will show the additional working capital that was secured by the sale of preferred stock:

	Cash	100,000	
	Unissued Capital Stock, Preferred		100,000
	To show the receipts from the sale of preferred stock, 6% cumulative.		

Capital Stock, Unissued Capital Stock and Subscribers' accounts in the ledger will appear as follows:

Capital Stock—Common

									400,000

Capital Stock—Preferred

									100,000

Unissued Capital Stock—Common

				400,000					325,000

Unissued Capital Stock—Preferred

				100,000					100,000

Subscribers

				325,000					200,000
									75,000
									50,000

Combining these accounts with the asset and liability accounts showing the assets and liabilities taken over from R. C. Manning & Son, the Balance Sheet of the new organization will be as follows:

MANNING MANUFACTURING COMPANY BALANCE SHEET

Assets		Liabilities	
Cash	$160,000.00	Accounts Payable	$30,000.00
Accounts Receivable	40,000.00	Notes Payable	40,000.00
Merchandise	60,000.00	Mortgages Payable	50,000.00
Manufacturing Supplies	75,000.00		
Office Equipment	15,000.00	Total Liabilities	120,000.00
Delivery Equipment	20,000.00	**Proprietorship**	
Machinery	100,000.00	Capital Stock Authorized	500,000.00
Buildings	50,000.00	Less: Unissued Stock	75,000.00
Land	25,000.00		
		Capital Stock Issued	425,000.00
Total Assets	545,000.00	Total Liabilities and Prop.	545,000.00

Operations of a Corporation

The process of organization has been shown to be concerned with: (a) permission to solicit subscriptions, and (b) permission to begin business activities. The corporation is ready to carry on its operations after the stock has been sold, the charter obtained and the preliminary data recorded in the books of account. The fact that a business is incorporated does not mean that its activities are distinctly different from those of a sole proprietorship or partnership. On the contrary, no matter what the legal organization of the enterprise, it must buy to sell, or produce to sell; it must incur certain expenses and realize certain profits, if it is to proceed in business; and these various transactions must be recorded on the books of account in order to know the condition of the business at all times. Consequently, the sole proprietorship, partnership, and corporation have many problems in common.

The difference in legal status between the corporation and the other forms of business organizations also affects to some extent its operations, that is, since its existence is the result of securing a charter, it necessarily is subject to the regulations and provisions set forth in that legal document. As long as the corporation acts in accord with the charter and by-laws, it is proceeding on a legitimate basis. Stating it conversely, the corporation acts as does a sole proprietorship or partnership, except when it is subject to the regulations imposed on it because of the nature of its legal entity. Those regulations arise from federal and state laws, the charter and by-laws of the corporation and the rulings of the board of directors.

Inasmuch as a state law is not constitutional when it is in opposition to a national law, and the regulations of a charter can not be considered legally binding when in opposition to a state law, the immediate concern of the executives of a corporation is with the regulations of the charter and by-laws. In the carrying out of the provisions contained therein, the board of directors is directly concerned. From the point of view of the records and reports, it is necessary for the corporation to maintain special books and accounts in order to present the transactions in accordance with the regulations placed on it. Subsidiary records are necessary to supplement the special accounts and to furnish additional information which may be demanded at any time by those having internal or external control. It is the purpose of the following chapter to discuss more completely such special accounts and records as are peculiar to the corporate form.

QUESTIONS FOR CLASS DISCUSSION

1

"In the early history of the development of the corporate form of organization, special action by the state legislature was required for the formation of each corporation." Can you give any reasons for requiring this special action?

2

You and four of your friends have decided to incorporate a newspaper business in your state. State the steps which will be necessary in order to have the corporation organized.

3

If possible, secure a copy of the corporation laws of your state and draw up the charter of your newspaper business so that it will conform to the regulations of your state laws.

4

Using the list of items of information which according to the laws of Illinois (given in this chapter) must be recorded, show the reason for including these various items in the charter.

5

A corporation has been organized under the laws of the state of Pennsylvania for $600,000.00 authorized capital stock, of which $300,000.00 is preferred and $300,000.00 is common. The par value of each share is $100.00.

a. State the opening entries if all the stock is sold for cash at the time of incorporating.

b. State the entries if land valued at $100,000.00 is taken in payment of subscriptions to common stock.

c. State the entries if $200,000.00 of the common stock is not issued at the time of organization.

6

For what reasons may it be desirable for a corporation to have an authorized capital stock greater than the amount of stock which it issues at the time of its organization?

7

Explain the various steps that are necessary in closing the books of a partnership which has been sold to a corporation, the partners receiving stock for their interests.

8

Explain the entries necessary to record such a purchase on the books of the corporation.

9

"The corporation acts as does a sole proprietorship or partnership, except when it is subject to the regulations imposed on it because of the nature of its legal entity." Explain why there should be such regulations in the corporation and not in the partnership or single proprietorship.

10

What specific demands upon accounting arise from the legal regulations placed on the corporation?

11

State the method of procedure when a corporation takes over the affairs of a partnership.

12

A corporation known as the Concrete Manufacturing Company has been organized under the laws of the state of Ohio with a capital stock of \$200,000.00; \$100,000.00 preferred and \$100,000.00 common stock, par value \$100.00 per share. This corporation takes over the partnership business of Hanson & Davis. The corporation agrees to pay the partnership \$120,000.00 for its business, consisting of machinery and equipment, \$50,000.00; land and buildings, \$40,000.00; notes receivable, \$5,000.00; accounts receivable, \$15,000.00; manufactured concrete ready for sale, \$10,000.00. Each partner receives twenty-five shares of preferred and thirty-five shares of common stock at par in payment for his interest in the partnership. The remainder of the stock is subscribed and paid for in cash.

State the opening entries for the corporation.

LABORATORY MATERIAL

Exercise No. 99

M. E. McMahon, E. D. Carpenter, B. B. Baker, J. W. Smith and H. H. Woodward have secured a charter to form a corporation for the purpose of conducting an agency for the purchase and sale of the Oakland automobile under the firm name of The Citizens Motor Car Company. The capital stock is to consist of 500 shares of common stock, par value $50.00. Each of the incorporators has subscribed and paid cash for 100 shares.

Instructions: Make in journal form the opening entries for this corporation.

Exercise No. 100

C. M. Anderson, who has been conducting a retail hardware business, incorporates under the firm name of The Anderson Hardware Co., with a capital stock of $5,000.00, 100 shares, par value $50.00. A. M. Walsh, A. R. Raymer, R. E. Rockwell and M. M. Berning each subscribed for 15 shares and C. M. Anderson 40 shares. It is agreed to pay Anderson $2,000.00 for the net assets of the business as shown by the Balance Sheet given below. Anderson accepts the 40 shares of stock in payment for his business and the other subscribers pay cash for their stock.

C. M. ANDERSON
Balance Sheet October 31

CURRENT ASSETS:		CURRENT LIABILITIES:	
Cash	$1,593.85	Accounts Payable	$1,107.15
Accounts Receivable	891.00		
Mdse. Inv., Oct. 31	622.30	Total Liabilities	1,107.15
		CAPITAL ACCOUNT:	
		C. M. A's Pres. Inv.	2,000.00
		Total Liabilities and	
Total Current Assets	3,107.15	Capital	3,107.15

Instructions: 1. Make in journal form the entries to close Anderson's books.

2. Make in journal form the entries to open the books of the corporation.

Exercise No. 101

Six persons of your city, all citizens of your state, are desirous of forming a manufacturing company, to be incorporated in your state with branches maintained in adjoining states. One person will furnish a building and land worth $100,000.00. The others will furnish cash totalling $300,000.00. The stock allotted to these six incorporators is to be common, each share to be valued at

$100.00 par. They plan to solicit subscriptions to bring the paid-up capital to $600,000.00 by issuing eight per cent cumulative preferred stock for the necessary amount. The total capital stock to be authorized by the certificate of incorporation is to be $750,000.00, 4,000 shares common stock and 3,500 shares preferred stock.

State fully and definitely the steps that these persons would have to take before they could legally carry on business. This answer may be presented in outline form, arranged chronologically.

State fully the details that would be included in the certificate of incorporation, supplying further data if necessary.

Assuming that the $600,000.00 has been fully subscribed and paid for, make the opening entries.

Exercise No. 102

O. P. Hellar and J. C. Longman have been conducting a retail shoe business. They incorporate under the firm name of The Regal Shoe Company, with a capital stock of $10,000.00, 100 shares of stock, par value $100.00. The following subscriptions are received: O. P. Hellar, 35 shares; J. C. Longman, 35 shares; P. B. S. Peters, 10 shares; D. C. Brown, 10 shares; O. A. Haynes, 10 shares. It is agreed to pay O. P. Hellar and J. C. Longman each $3,500.00 for their net interests in the business as shown by the Balance Sheet given below. Hellar and Longman each accept 35 shares of stock in payment for their interest in the business and the other subscribers pay cash for their stock.

Instructions: 1. Make in journal form the entries to close the books of Hellar and Longman.

2. Make in journal form the entries to open the books of the corporation.

HELLAR & LONGMAN
Balance Sheet, December 31

CURRENT & ACCRUED ASSETS:			CURRENT & ACCRUED LIABILITIES:		
Cash	$626.05		Notes Pay.	$3,600.00	
Notes Rec.	793.87		Accts. Pay.	2,602.87	
Accts. Rec.	2,614.86		Accrued Liabilities	64.65	
Mdse. Inv.	6,478.39				
Total Cur. & Accrued Assets		$10,513.17	Total Cur. & Accrued Liabilities		$6,267.52
FIXED ASSETS:			CAPITAL ACCOUNTS OF PARTNERS:		
Store Fixtures	588.70		O. P. Hellar, Inv.		3,500.00
Delivery Equip.	1,395.00		J. C. Longman, Inv.		3,500.00
Office Equip.	523.35				
Total Fixed Assets		2,507.05			
Deferred Charges to Operations		247.30			
Total Assets & Deferred Charges		13,267.52	Total Liabilities & Capital		13,267.52

Exercise No. 103

N. B. Davis, who has been conducting a retail dry goods store, incorporates under the firm name of The N. B. Davis Company, with a capital stock of $10,000.00, 200 shares, par value $50.00. The following subscriptions are received: N. B. Davis, 100 shares; H. M. Brayton, 20 shares; E. M. Ward, 15 shares; C. A. Clark, 5 shares; A. S. Walker, 10 shares; E. A. Hanson, 25 shares. It is agreed to pay Davis $5,000.00 for the net assets of his business as shown by the Balance Sheet given below. Davis accepts the 100 shares of stock in payment for his business. The other subscribers pay cash for their stock.

Instructions: 1. Make in journal form the entries to close the books of N. B. Davis.

2. Make in journal form the entries to open the books of the corporation.

N. B. DAVIS, BALANCE SHEET, NOVEMBER 30

CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash	$3,615.25		Notes Pay.	$1,949.95	
Notes Rec.	292.32		Accounts Pay.	4,273.19	
Accounts Rec.	1,002.86		Total Liabilities		$6,223.14
Mdse. Inv.	6,172.71				
Total Current Assets		$11,083.14	CAPITAL ACCOUNT:		
FIXED ASSETS:			N. B. Davis, Pres.		
Furn. & Fix.		140.00	Inv.		5,000.00
Total Cur. & Fix. Assets		11,223.14	Total Liabilities & Capital		11,223.14

Exercise No. 104

W. R. Colter and J. H. Lawson have been conducting a wholesale grocery business. They incorporate under the firm name of The Colter Grocery Company, with a capital stock of $30,000.00, 300 shares preferred and 300 shares common stock, par value $50.00. The following subscriptions are received: J. H. Lawson, 200 shares preferred stock; W. R. Colter, 200 shares common stock; C. H. Hamer, 30 shares common stock; M. M. Boyle, 20 shares common stock. It is agreed to pay Colter & Lawson $20,000.00 for the net assets of their business as shown by the Balance Sheet at the top of page 546. J. H. Lawson and W. R. Colter accept the stock in payment for their interest in the business. The other subscribers pay cash for their stock.

Instructions: 1. Make the entries to close the books of Colter and Lawson from the Balance Sheet at the top of the next page.

2. Make the entries to open the books of the corporation.

(Concluded on page 546)

(Continued from page 545)

COLTER & LAWSON, BALANCE SHEET, SEPTEMBER 30

CURRENT & ACCRUED ASSETS:			CURRENT & ACCRUED LIABILITIES:		
Cash	$214.85		Notes Pay.	$5,018.25	
Notes Rec.	1,394.43		Accounts Pay.	3,511.96	
Accounts Rec.	9,515.89		Accrued Liabilities	361.24	
Mdse. Inv.	4,698.95				
Total Cur. & Accrued Assets		$15,824.12	Total Cur. & Accrued Liabilities		$8,891.45
FIXED ASSETS:			CAPITAL ACCOUNTS OF PARTNERS:		
Office Equip.	1,279.11		J. H. Lawson		10,000.00
Delivery Equip.	2,400.00		W. R. Colter		10,000.00
Buildings	6,173.19				
Land	3,000.00				
Total Fixed Assets		12,852.30			
Deferred Charges		215.03			
Total Assets and Deferred Charges		28,891.45	Total Liabilities & Capital		28,891.45

Exercise No. 105

Charles Smith has been conducting a retail drug store. He decides to incorporate under the firm name of The Smith Drug Company with a capital stock of $10,000.00, 200 shares, par value $50.00. The following subscriptions are received: Charles Smith, 100 shares, J. A. Duff, 50 shares; F. B. Cooper, 30 shares; W. R. Power, 10 shares and E. B. Wright, 10 shares. It is agreed to pay Smith $5,000.00 for the net assets of his business as shown by the Balance Sheet given below. Smith accepts the 100 shares of stock in payment for his business. The other subscribers pay one-half of the par value of their stock, the balance to be paid within thirty days.

Instructions: 1. Make in journal form the entries to close the books of Charles Smith.

2. Make in journal form the entries to open the books of the corporation.

CHARLES SMITH, BALANCE SHEET, DECEMBER 31

CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash	$1,181.35		Notes Pay.	$2,665.90	
Accounts Rec.	1,635.17		Accounts Pay.	1,096.02	
Mdse. Inv.	2,820.40				
Total Current Assets		$5,636.92	Total Liabilities		3,761.92
FIXED ASSETS:			CAPITAL ACCOUNT:		
Furn. & Fix.	125.00		Chas. Smith, Pres. Inv.		5,000.00
Land	1,200.00				
Buildings	1,800.00				
Total Fixed Assets		3,125.00			
Total Cur. & Fix. Assets		8,761.92	Total Liabilities & Capital		8,761.92

Exercise No. 106

Schaeffer & Lawton, partners in a mercantile company, wish to incorporate under the name of The Lawton Mercantile Co. They will transfer all assets and liabilities of the partnership to the corporation, and will admit A. L. Parkhurst as a third incorporator, and such other stockholders as may purchase the stock that will be offered on the market. The Balance Sheet of Schaeffer & Lawton is as follows:

SCHAEFFER & LAWTON
Balance Sheet. December 31, 1920

Assets		Liabilities	
Cash	$1,000.00	Notes Payable	$3,000.00
Notes Receivable	2,000.00	Accounts Payable	2,000.00
Accounts Receivable	5,000.00	Accrued Items	1,000.00
Investments	2,000.00	Mortgages Payable	16,000.00
Merchandise	15,000.00		
Office Equipment	5,000.00	Total Liabilities	22,000.00
Delivery Equipment	2,000.00	**Proprietorship**	
Land and Buildings	25,000.00		
Deferred Charges	1,000.00	A. M. Schaeffer, Capital	18,000.00
		F. H. Lawton, Capital	18,000.00
		Total Proprietorship	36,000.00
Total Assets	58,000.00	Total Proprietorship and Assets	58,000.00

A. L. Parkhurst will invest a building and lot adjoining that of Schaeffer & Lawton. This is valued at $15,000.00. He will also invest office equipment valued at $500.00, and motor trucks valued at $2,500.00. Other stock has been subscribed and paid for in cash, making the total capital stock issued $60,000.00. The capital stock issued is all common stock and is the full amount to be authorized.

Required: 1. Make in journal form the entries to close the books of Schaeffer & Lawton.

2. Make in journal form the entries to open the books of the corporation.

Exercise No. 107

Chas. Simonds, who has been conducting a retail book and stationery business, incorporates under the firm name of The Chas. Simonds Company, with a capital stock of $25,000.00, 250 shares, par value $100.00. The following subscriptions have been received: Chas. Simonds, 170 shares; B. Austin, 40 shares; L. E. Barton, 20 shares; Frank L. Bernard, 10 shares, and H. C. Hayes, 10 shares.

Simonds pays for his stock with the net assets of his business as shown by the Balance Sheet given below. The other subscribers pay cash for their stock.

Instructions: 1. Make in journal form the entries to close the books of Chas. Simonds.

2. Make in journal form the entries to open the books of the corporation.

CHAS. SIMONDS, BALANCE SHEET, MARCH 31

CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash	$15,538.04		Notes Pay.	14,578.10	
Notes Rec.	2,038.91		Accounts Pay.	17,491.12	
Accounts Rec.	12,912.65				
Mdse. Inv.	11,504.62		Total Liabilities		32,069.22
Total Current Assets		$41,994.22	CAPITAL ACCOUNT:		
FIXED ASSETS:			Chas. Simonds		17,000.00
Furn. & Fix.	2,075.00				
Land	2,000.00				
Buildings	3,000.00				
Total Fixed Assets		7,075.00			
Total Assets		49,069.22	Total Liabilities & Capital		49,069.22

Exercise No. 108

THE AMERICAN MERCANTILE COMPANY
Balance Sheet, May 31

CURRENT & ACCRUED ASSETS:			CURRENT & ACCRUED LIABILITIES:		
Cash	$7,606.11		Notes Pay.	$10,000.00	
Notes Rec.	2,465.75		Accounts Pay.	27,624.18	
Accounts Rec.	53,075.80		Accrued Liabilities	349.00	
Mdse. Inv.	25,935.28				
Branch Store Inv.	4,136.82				
Accrued Int.	32.75		Total Cur. & Accrued Liabilities		$37,973.18
Total Cur. & Accrued Assets		$93,252.51	CAPITAL ACCOUNT:		
FIXED ASSETS:			Capital Stock		50,000.00
Office Equip.		1,527.99	Surplus		7,854.20
Deferred Charges to Operations		1,046.88			
Total Assets and Deferred Charges		95,827.38	Total Liabilities & Capital		95,827.38

The capital stock of the American Mercantile Company consists of 500 shares of stock, par value $100.00, owned by the following: W. R. Carter, 100 shares; A. L. Seaton, 50 shares; Robert Bryant, 75 shares; A. R. Neill, 60 shares; A. C. Harding, 25 shares;

W. L. Warnick, 50 shares; C. C. Parker, 40 shares; U. R. Smart, 50 shares; C. A. Day, 35 shares, and Wm. M. Mays, 15 shares. It is desired to discontinue the business as a corporation and the first four stockholders have decided to continue it as a partnership under the firm name of W. R. Carter & Co. All of the stockholders agree to accept settlement for their interests in the business at $110.00 per share, the retiring stockholders to be paid cash for their stock. The balance of the surplus is to remain in the business for one year to protect the partnership from any loss which may result through the failure to collect the notes and accounts accepted from the corporation by the partnership. At the end of the year, any balance of this surplus will be paid in cash to the former stockholders in proportion to their holdings at the time of the dissolution of the corporation. Each of the four partners invests $5,000.00 in cash in addition to his interest in the assets as shown by the number of shares he owns in the corporation.

Instructions: 1. Make (in journal form) the entries for (a) the investment of the four partners; (b) the transfer of the assets and liabilities of the corporation to the partnership, and (c) the transactions with the retiring stockholders.

2. Assuming that at the end of the first year of operations, there remains uncollected a note for $500.00 and an account for $604.20 and it is agreed that these are to be charged to the Surplus account, make (in journal form) the entry to adjust the balance of the Surplus account, the partners' personal accounts being credited with their share.

CHAPTER XL

ACCOUNTS PECULIAR TO A CORPORATION

Capital Stock, Capital and Surplus

The charter of a corporation states the maximum amount of stock which it may issue. This amount is termed the *authorized* capital stock. In some states the laws require that a certain percentage of the authorized capital stock must be issued as a minimum. Since the company is under no obligation to issue stock in excess of the minimum required by law, frequently the amount issued is not equal to the amount authorized. The stock issued is termed the *outstanding* stock, and the difference between the *authorized* and the *outstanding* stock is known as the *unissued* capital stock. In making the ledger record, the authorized capital stock may be shown as a credit item and the unissued capital stock shown as a debit item. By subtracting the latter from the former, the outstanding stock can be obtained at any time. If desired, the authorized capital stock and the unissued capital stock may be omitted from the ledger record and only the outstanding capital stock shown. In the following discussion both methods will be illustrated. Whichever method is followed in making the ledger record, it is desirable that the three items, authorized capital stock, unissued capital stock and outstanding capital stock, be shown on the Balance Sheet. To avoid confusion it is necessary therefore for the student to understand the meaning of these terms.

A careful distinction must be made between the "capital" and the "capital stock" of a corporation. The *capital* of a corporation expresses its proprietorship, or the difference between its assets and its liabilities. Since the assets and liabilities of a business are continually changing, its capital does not remain the same. The assets and liabilities of a firm at the end of February may be quite different in value from its assets and liabilities at the end of January, and this change brings about a corresponding change in the capital. Such changes in the capital of the corporation are taking place continuously. Since the amount of the capital stock of a corporation remains constant, except when the charter is amended, it is necessary to provide some means for recording fluctuations in the proprietorship. This is accomplished by setting up another account termed Surplus account. This account records the increases and decreases in proprietorship which take place during the operations of the business. In order to arrive at the capital or proprietorship of the corporation at any time, it is necessary to add the surplus to capital stock outstanding. Sometimes the proprietorship of a business becomes less than its capital stock, in which case the difference is termed "deficit" instead of surplus, and the amount is subtracted from the Capital Stock to determine the capital or proprietorship.

Accounts with Capital Stock

As previously explained, there are two methods of keeping a ledger record with capital stock. With the first method a record is kept with the capital stock authorized and with the unissued capital stock, if any. With the second method a record is kept with capital stock issued and outstanding only. Both methods will be explained.

A. First Method

The purpose of the Capital Stock account is to show the par value of the capital stock authorized by the charter. If different classes of stock, such as common and preferred, are authorized by the charter, a separate account is kept with each class. The debits and credits to the account kept with each class are the same.

The debits and credits to the Capital Stock account are as follows:

Capital Stock

DEBIT:	CREDIT:
With the par value of any decrease in capital stock authorized by amendment to the charter.	1. With the par value of the capital stock authorized by the charter. 2. With the par value of any increase in capital stock authorized by amendment to the charter.

The balance of this account shows the par value of the capital stock authorized. If all the stock authorized has been sold and issued, the balance of this account shows the outstanding capital stock of the corporation. If any part of it has not been issued, the value of this is shown in the Unissued Capital Stock account.

The difference between the balance of the Capital Stock account and the Unissued Capital Stock account is the par value of the stock outstanding. All three items are shown on the Balance Sheet in determining the proprietorship of the corporation.

The purpose of the Unissued Capital Stock account is to show the par value of the unissued capital stock. When all of the stock of the corporation has been issued, this account will balance.

The debits and credits to the Unissued Capital Stock account are as follows:

Unissued Capital Stock

DEBIT:	CREDIT:
With the par value of the capital stock authorized by the charter.	With the par value of capital stock issued.
With the par value of any increase in capital stock authorized by amendment to the charter.	With the par value of any decrease in capital authorized by amendment to the charter.

The balance of this account is a debit and shows the amount of unissued capital stock. It is shown on the Balance Sheet as a deduction from the balance of the Capital Stock account.

B. Second Method

The purpose of the Capital Stock account is to show the par value of the capital stock outstanding.

The debits and credits to the Capital Stock account are as follows:

Capital Stock

DEBIT:	CREDIT:
With the par value of capital stock canceled.	With the par value of capital stock issued.

The balance of this account shows the par value of the capital stock outstanding.

Accountants do not agree as to which of the two methods illustrated in the foregoing discussion is the better. It makes little difference which method is used so long as the records indicate the facts clearly. In the laboratory material accompanying this text, instructions will be given as to the method to be followed.

Surplus Account

The surplus of a corporation is the difference between its proprietorship and capital stock outstanding. If the proprietorship of a corporation is less than its capital stock outstanding, the difference is termed a *deficit.* The Surplus account shows the accumulated earnings of the corporation. At the close of each fiscal period, the net earnings of the period are carried to the Surplus account. When profits are distributed to the stockholders, the amount distributed is taken from the Surplus account, and the balance of the account shows the accumulated profits retained in the business. Sometimes errors are discovered during one period which show that the profits of a preceding period have been overstated or understated. Such errors should be corrected by increasing or decreasing the amount of the surplus, because such profits or losses do not affect the earnings of the current period, hence should not be shown in the expense and income accounts of the period.

The debits and credits to the Surplus account are as follows:

Surplus

DEBIT:	CREDIT:
At the close of the fiscal period with the net loss shown by the debit balance of the Profit and Loss account.	At the close of the fiscal period with the net profit shown by the credit balance of the Profit and Loss account.
With the amount of dividends declared.	With any adjustment during the fiscal period which increases the profit of a preceding period.
With any adjustment during the fiscal period which diminishes the profit of a preceding period.	

The balance of the Surplus account at the close of the fiscal period shows the undivided profits of the corporation. It is shown on the Balance Sheet as an addition to the Capital Stock Outstanding.

Method of Showing the Proprietorship of the Corporation

In showing the proprietorship of a corporation on the Balance Sheet, it is necessary to take into consideration at least three items: capital stock authorized, unissued capital stock and surplus. The relation of these items to proprietorship is indicated by the following equations:

Assets — Liabilities = Capital or Proprietorship.

Capital = Capital Stock Outstanding + Surplus.

Capital Stock Outstanding = Capital Stock Authorized — Stock Unissued.

The following condensed Balance Sheet illustrates the application of these equations:

WESTERN FURNACE COMPANY
Balance Sheet as of July 1, 1920

Assets		Liabilities	
Total Assets	$79,462.50	Total Liabilities	$28,011.00
		Proprietorship	
		Capital Stock Authorized	50,000.00
		Unissued Stock	10,000.00
		Capital Stock Outstanding	40,000.00
		Surplus	11,451.50
		Total Proprietorship	51,451.50
	79,462.50	Total Liabilities and Proprietorship	79,462.50

Dividend Account

A dividend is a distribution to stockholders of a part or all of the profits of a corporation. Dividends can be legally declared only out of profits. They can be declared only by the directors, and a stockholder has no claim upon the profits of the corporation until a dividend has been declared.

Dividends may be declared from the accumulated profits of previous periods, or they may be declared at the end of the fiscal period from the profits of the current period. When dividends are declared from current profits, there are two methods by which they may be recorded. By the first method the dividends are deducted from the net earnings shown in the Profit and Loss account, leaving only the earnings in excess of the dividend to be carried to the Surplus account. By the second method, the total net earnings as shown by the Profit and Loss account, are transferred to the Surplus account and the dividend is deducted from the Surplus account. In both cases a Dividend account is credited for the amount of the dividends. To illustrate the two methods it may be assumed that the Profit and Loss account shows a balance of $25,467.85 before any distribution of profits is made. The Company declares a dividend of $15,000.00. Under the first method the entries would be:

		Profit and Loss	15000			
		Dividend No. 1			15000	
		To record the declaration of Dividend No. 1.				
		Profit and Loss	10467	85		
		Surplus			10467	85
		To transfer extra profits to Surplus.				

The ledger accounts to record the foregoing transactions would be as follows:

Profit and Loss

$15,000.00	$25,467.85
10,467.85	
$25,467.85	$25,467.85

Surplus

	$10,467.85

Dividend

	$15,000.00

With the second method, the entries would be:

	Profit and Loss	25467	85		
	Surplus			25467	85
	To transfer profits to Surplus.				
	Surplus	15000			
	Dividend No. 1			15000	
	To show declaration of Dividend No. 1.				

The ledger account resulting from these transactions would be:

Profit and Loss

$25,467.85	$25,467.85

Surplus

$15,000.00	$25,467.85

Dividend

	$15,000.00

Since dividends are not usually declared until some time after the close of the fiscal period, the second method is the one most frequently followed, and this method will be assumed in the following discussion.

The purpose of the Dividend account is to show the amount of dividends declared, but unpaid. When a dividend is declared by the board of directors, it becomes a liability of the company to the stockholders and must be so recorded at once. Usually a separate Dividend account is opened with each dividend declared. These accounts are numbered serially. Thus there will appear on the ledger Dividend No. 1, Dividend No. 2, etc.

The Dividend account is debited and credited as follows:

Dividend

DEBIT:	CREDIT:
With the amount of dividends paid.	With the amount of dividends declared by the board of directors.

The balance of the Dividend account shows the amount of dividends declared, but unpaid. It is shown as a current liability on the Balance Sheet. Usually the unpaid dividends are termed Dividends Payable when they appear on the Balance Sheet. If dividends are not paid when due, a stockholder may bring legal action against the company in the same manner as against any other creditor.

The policies of corporations, with reference to the amount of their profits which they distribute as dividends, vary widely. Conservatively managed corporations prefer to retain all earnings above reasonable dividends as a fund available in case of depression or to take care of unforeseen contingencies. Most corporations take pride in the accumulation of a large surplus, as is evidenced by the emphasis laid upon this item in many advertisements and published reports. The funds derived from accumulated earnings may be invested in stocks and bonds of other companies, or they may be used in the business as additional working capital. The investment in stocks and bonds of other companies usually does not earn as large an income as investment in the company's own business, but it provides the company with some quickly convertible assets, since stocks and bonds, if chosen wisely, can usually be sold on the stock market.

Treasury Stock Account

Treasury stock is stock which has been issued and fully paid up, but through purchase or gift comes back into the possession of the company. Such stock is entirely different from unissued stock, since the latter has never been certified by the corporation, and therefore does not represent any recordable value. Treasury stock, on the other hand, must appear in the records, for until it is canceled it represents a part of the shareholders' equity in the corporation.

Fully paid up stock is sometimes donated to the company in order that the stock may be sold again to secure working capital. This practice is especially prevalent in those companies which issue all their stock in payment for property. The following will illustrate the method of handling donated stock: The stockholders of a company donate $50,000.00 (par value) of stock to the corporation. The entry to record the receipt of the stock is:

		Treasury Stock	50000	
		Treasury Stock Donated		50000
		(Explanation.)		

If the stock is sold at par the following entry would be made:

	Cash	50000	
	Treasury Stock		50000
	(Explanation.)		

The Treasury Stock Donated account will show a balance of $50,000.00, which is the profit derived from the sale of the treasury stock. This profit may be closed into Surplus account, but it is better to close it into a Capital Surplus account in order to indicate that it is not available for dividends. It should not be distributed as dividends, for the stockholders donated the stock to provide working capital, and their object would be defeated if the proceeds of the sale are distributed as dividends.

In many cases where stock is donated to the company, it can not be sold at par. In such cases entries must be made to record the difference between the sales price and its par value. Assuming in the present case that the stock is sold at $80.00 a share, the entries would be as follows:

	Cash	40000	
	Treasury Stock Donated	10000	
	Treasury Stock		50000
	To record sale of Treasury Stock at $80.00 a share.		

The Treasury Stock account would thus balance, and the Treasury Stock Donation account would show a balance of $40,000.00, which is the profit derived from the gift.

Sometimes a corporation purchases its stock. Regardless of the price paid for the stock, the Treasury Stock account should be debited for the par value of the stock. If the stock is purchased for less than par, the difference should be credited to Discount on Treasury Stock. If purchased for more than par, the difference should be debited to Premium on Treasury Stock.

The purpose of the Treasury Stock account is to show the value of the stock of the corporation which has been donated to it or purchased by it. It must *never* represent the unissued stock of the corporation.

The debits and credits to the Treasury Stock account are as follows:

Treasury Stock

DEBIT:	CREDIT:
With the par value of the stock of the corporation purchased by the corporation.	With the par value of treasury stock sold.
With the par value of the corporation's stock donated to the corporation.	

The balance of the Treasury Stock account shows the par value of the stock of the corporation which it holds in its treasury. It is shown on the Balance Sheet as a deduction from the balance of the Capital Stock account.

Accounts with Subscriptions Receivable and Capital Stock Subscribed

If any time is to elapse between the subscription for the stock and the time when the subscriptions are due and payable, it is advisable to open accounts to show the amount due from subscribers and the amount of stock which the company has agreed to issue. The former account is termed Subscriptions Receivable and the latter is termed Capital Stock Subscribed.

The debits and credits to the Subscriptions Receivable account are as follows:

Subscriptions Receivable

DEBIT:	CREDIT:
With the par value of capital stock subscribed.	With the subscriptions paid.

The balance of this account is the amount due from subscribers. It is usually shown on the Balance Sheet as a current asset. In the case of stock paid on the installment plan, it may not be a *current* asset. In this case, it is shown under a separate classification on the Balance Sheet.

The debits and credits to the Capital Stock Subscribed account are as follows:

Capital Stock Subscribed

DEBIT:	CREDIT:
With the par value of shares issued to subscribers. At the same time Capital Stock or Unissued Stock will be credited, depending on the method employed in recording the capital stock.	With the par value of the capital stock subscribed.

The balance of this account shows the capital stock subscribed for but not issued. It is shown on the Balance Sheet as an addition to Capital Stock Outstanding, if any has been issued; if not, it is shown as the only item of proprietorship.

In the case of many corporations where the capital stock is paid for shortly after it is subscribed, the accounts with Subscriptions Receivable and Capital Stock Subscribed are not used.

QUESTIONS FOR CLASS DISCUSSION

1

A certain corporation has an authorized capital stock of $500,000.00 and has $350,000.00 capital stock outstanding. Account for the difference in the amounts of these two items.

2

Can the proprietorship of the corporation be determined from the information given in Question 1? If not, what does represent the proprietorship? How is the proprietorship shown on the books of the corporation?

3

Explain and illustrate two methods which may be employed in making entries for a corporation.

4

A corporation has a capital stock of $75,000.00, all of which was issued at the time of organization. Make the journal entries necessary to record an increase of $25,000.00 in capital stock which has been authorized by amendment to the charter, but which has not been subscribed. How would this authorized increase of capital stock be shown on the Balance Sheet?

5

If the newly authorized stock of the corporation discussed in question 4 had been issued and fully paid up before the close of the fiscal period, how would the Balance Sheet differ from the one prepared in accordance with question 4?

6

A corporation has a capitalization of $225,000.00 of which $200,000.00 has been issued. Assume that the company has secured a revision of the charter decreasing the capital stock $25,000.00 and make the proper entries to place this transaction on the books.

7

The Blank Manufacturing Company has a total capital stock outstanding of $50,000.00, $25,000.00 of which is common stock and the remainder is seven per cent nonparticipating preferred.

The net earnings for the year are $6,105.20. After paying the seven per cent dividend to the preferred stockholders, what rate of dividend might be allowed the common stockholders if the by-laws of the corporation require one-fourth of the net earnings of each year to be carried to surplus?

Give the journal entries necessary to record the dividends on stock and the transfer of profit to the Surplus account.

If the dividends so declared were paid in cash, what entries would be made?

8

Using the Balance Sheet of some corporation which publishes its financial condition in your city newspaper apply the equations with reference to proprietorship given in this chapter.

9

Explain the two methods of recording dividends and state when one may be preferable to the other.

10

"It is customary to open a new Dividend account for each dividend declared." Explain why this should be done.

11

The stockholders of a corporation have received stock in return for land and buildings. As a result, the company has its fixed assets but needs working capital. The stockholders agree to donate to the company $20,000.00 stock to be sold to provide working capital. What entries would be made at the time the stock is received?

12

Assume that $100,000.00 Treasury stock is sold at par. What entries are necessary to place this transaction on the books? If the stock is sold below par, how will the accounts be affected?

13

Explain the use of the *Subscriptions Receivable* and *Capital Stock Subscribed* accounts.

LABORATORY MATERIAL

Exercise No. 109

The Landis Manufacturing Company is incorporated with an authorized capital stock of $1,000,000.00, of which $600,000.00 is common and $400,000.00 is six per cent cumulative preferred. The company begins operations on January 1, 1919, and its records are opened as of this date.

$400,000.00 of common stock and $300,000.00 of preferred stock has been subscribed prior to January 1, 1919. The subscribers pay one-half of their subscriptions on or before this date.

Instructions: 1. Make (in journal form) entries to record the foregoing transactions. The total authorized stock of the company will be shown in the records.

2. Post the foregoing entries to the proper ledger accounts, allowing ten lines for each account.

Exercise No. 110

The subscribers to the capital stock of the Landis Manufacturing Company pay the remainder of the purchase price of their stock on July 1, 1919. The records of the Landis Manufacturing Company show a net profit of $40,000.00 for the year 1919.

Dividends on preferred stock are declared at a meeting of the board of directors on January 10, 1920. They are paid ten days later. The net profit for the year 1920 is $60,000.00. Dividends on preferred stock are declared at a meeting of the board of directors on January 12, 1921. They are paid on February 1st.

Instructions: 1. Make (in journal form) entries necessary to record the foregoing operations. In recording the net profits for each year, debit "Assets" and credit "Profit and Loss." The student will understand that the net profit shown in the Profit and Loss account is the result of the closing of the Expense and Income accounts into this account, and that this profit must be represented by assets of some kind. The Profit and Loss account will be closed into the Surplus account.

2. Post the foregoing journal entries to the ledger accounts prepared in Exercise No. 109.

3. Explain how the dividends declared on January 12, 1921, would appear on a Balance Sheet prepared January 20, 1921.

Exercise No. 111

At the meeting of the board of directors on January 12, 1921, it is voted to issue the remainder of the common stock. The stock is subscribed and paid in cash on February 15th.

The company is desirous of investing capital to experiment with certain new and untried processes of manufacture, and the common stockholders agree to donate to the company ten per cent of their holdings which may then be resold to the public, and the proceeds from the sale used as capital for development purposes.

The stock is received by the company on March 1, 1921. One-half of it is sold April 1, 1921, for cash at $98.00 per share.

Instructions: 1. Make the journal entries to record these transactions.

2. Post the journal entries to the ledger accounts prepared in Exercises Nos. 109 and 110.

CHAPTER XLI

RECORDS PECULIAR TO A CORPORATION

Records Required by a Corporation

The financial records of a corporation are essentially the same as those of any other type of business organization. A few additional accounts, which were discussed in the preceding chapter, will be required, but they can be added in the general ledger. The books of original entry need not be different from those used by a sole proprietorship or a partnership. The only distinctive books and records required by a corporation are those used to record the corporate activities of the company. The records required for this purpose are:

1. The Minute Book.
2. The Subscription Book.
3. The Subscribers' Ledger.
4. The Stock Certificate Book.
5. The Stockholders' Ledger.
6. The Stock Transfer Book.

The Minute Book

The minute book is the legal record of the proceedings of all meetings of stockholders and board of directors. This book may vary in size and style from an inexpensive record book to an elaborately bound volume especially designed for the company. For convenience in making records on the typewriter, it may be loose leaf. If this be the case, the number of each page is watermarked, or each page is initialed or signed by the president and secretary, in order to prevent insertions and substitutions.

Unless the charter and by-laws be bound in a separate volume, they should be written, pasted or bound in the minute book, usually at the front of the book. The original copy of the charter should appear in the minute book. A few pages may be left blank after each document to take care of amendments which may be made later.

All entries in the minute book are made by the secretary of the corporation. The first record would be that of the first meeting of the stockholders. Following this in chronological order, there would appear all records of meetings, regular and special, of the stockholders and board of directors, unless the secretary should prefer to apportion a separate part of the book to record the minutes of the meetings of the stockholders and the meetings of the board of directors. In a large corporation the meetings of the stockholders and the board of directors may be recorded in separate volumes. The account of each meeting should begin at the top of a new page, and no blank pages should be left between records.

The minutes should include date and place of meeting, copy of the notice given, name of the presiding officer, amount of stock represented by those in attendance, whether or not the attendance constitutes a quorum, etc. A very complete, detailed record of the transactions of each meeting should be given, as this serves as authority for all action of the officers and furnishes data for many important entries to be made by the accountant.

Whether or not the exact wording of each motion or resolution should be recorded depends upon the importance of the matter under consideration. If so ordered by the meeting, any report or other document presented before the meeting may be "spread upon the minutes," i. e., written out in full. In any case, all such papers should be preserved by the secretary.

The minutes of meetings of the board of directors should contain the names of directors present. In case of meetings of stockholders, the names of members present ordinarily are not entered, but a list should be preserved by the secretary.

Regular meetings of stockholders are annual, as a rule; meetings of the board of directors may be monthly or quarterly. Special meetings of either body may be called as prescribed by the by-laws. As the legality of the proceedings of a special meeting depends upon the legality of the call and notice, the call and notice are usually entered upon the minutes.

As a basis for the transaction of business, reports may be given by the president on general conditions, by the treasurer on financial conditions, by the regular committees or by such special committees as may have been appointed at preceding meetings. Transactions may include decisions on the purchase and sale of property, investment of surplus funds, declaration of dividends, securing additional funds through issue of bonds or additional stock, creation and continuation of reserves, sinking funds, etc.

The Subscription Book

In most states laws governing the incorporation of corporations provide that all or a major part of the capital stock of a corporation must be subscribed before a charter will be granted. It is necessary, therefore, for the organizers of a corporation to secure subscriptions to the stock before they apply for a charter. Usually, "subscription blanks" are prepared on which to secure the signatures of those who agree to subscribe to the stock. Each blank is headed with a contract by which the subscribers agree to purchase the number of shares set opposite their signatures. Any number of subscribers may sign the same subscription list. In a large corporation there may be several such lists, since one will be needed for each solicitor. Later these subscription lists are filed in a binder and referred to as the subscription record or book. The entries for subscriptions are made in the other records of the corporation from the record in the subscription book.

The Subscribers' Ledger

This ledger contains accounts with the subscribers to the capital stock, each subscriber being charged with the par value of the stock subscribed and credited with the payments in full or on account. The original entries in this ledger are made from the subscription book and the payments are posted from the cash record. The Subscribers' Receivable account in the general ledger is the controlling account for the subscribers' ledger. No particular form of ruling is required for the subscribers' ledger as the standard ledger ruling will serve satisfactorily.

Stock Certificate Book

The stock certificate book consists of blank stock certificates numbered serially, bound in book form, usually 100 to 500 in a book, with a stub for each certificate. If both common and preferred stock are issued, different kinds of certificates are usually used for each class, although some companies use one form for both common and preferred and designate the preferred stock certificate by printing the word "Preferred" and the conditions of preference in a different color ink across the face of the common stock certificate. In some cases the provisions of the charter with reference to the different classes of stock are printed in the certificate. In this case the same form can be used for all classes and it is only necessary to indicate the class of stock for which the certificate is issued. When different forms are used, separate books

(Continued on page 567)

Certificate No. *1*

For *450 Shares*

Issued to

H. D. THOMPSON,

City

Dated *July 10th*

From Whom Transferred

Dated ______

No. Original Certificate	No. Original Shares	No. of Shares Transferred

Received Certificate No. *1* for *450* shares this *10th* day of *July*, 19

H. D. THOMPSON

Number *1* Shares *450*

THE SUPERIOR ICE CREAM COMPANY

Capital Stock—Common, $100,000.00; Preferred, $50,000.00

Incorporated under the laws of the State of Illinois

THIS CERTIFIES THAT *H. D. Thompson is the owner of Four Hundred Fifty (450) shares common stock of the Capital Stock of The Superior Ice Cream Company, transferable only on the books of the said company, in person or by Attorney, on surrender of this Certificate.*

IN WITNESS WHEREOF, *said Company has caused this Certificate to be signed by its President and Secretary at Chicago, Illinois, this 10th day of July, 19__.*

George A. Rooney,
President.

H. D. Thompson,
Secretary.

Illustration No. 56—Stock Certificate Book may be kept for each class, or both may be bound in the same book; in either case, each class usually has its own serial numbers.

As will be seen, by referring to Illustration No. 56, on page 566, each certificate contains the corporate name, the state in which it is located, the capital stock, the total number of shares and the number of shares represented by the certificate. When stock is issued, the certificates and accompanying stubs are properly filled out. The stubs serve as a permanent record of the number of shares of stock represented by each certificate, the date of issue, the name of the person to whom issued and whether the stock is an original issue or a reissue. On the stub there is usually a receipt which the stock owner or his attorney must sign when the certificate is surrendered for cancellation.

If stock is transferred, the owner must sign the endorsement printed on the back of the certificate, the form of which is usually as in Illustration No. 57.

FOR VALUE RECEIVED ______________ *hereby sell, transfer and assign unto* ______________

Shares of Capital Stock represented by the within mentioned Certificate and hereby irrevocably constitute and appoint ______ *to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.*

Dated ______________ *19*___.

____

____

In the presence of

____

Illustration No. 57—Endorsement on Certificate of Stock

The signature of the transferor must be witnessed, as the above form indicates, but the name of the new owner need not be filled in. If this part of the endorsement is left blank, the certificate may be passed from one purchaser to another. However, on the records of the company (the stub of the certificate and the account in the stock ledger), the first transferor is still owner, and he remains so until this certificate is surrendered to the secretary of the company and another one is issued to the new owner. The new owner's name must now be inserted in the endorsement of the old certificate. Usually the certificate thus canceled is pasted to the stub from which it was detached when issued. Attention has already been called to the fact that if a stock certificate is lost or destroyed, an indemnity bond is usually required before the secretary will issue a new certificate.

From this discussion, it is seen that the stock certificate book is a record book, not a book of account. However, a relation exists between the results shown by this book and the Capital Stock account or accounts in the general ledger, and careful check should be made regularly to see that the stock certificate book is being kept accurately. From the data given on the stubs of this book, the bookkeeper secures data for entries in the stock ledger, with which the stock certificate book must also check accurately, as is shown by the following discussion.

Stock Ledger

The stock ledger, or stock book as it is sometimes called, is a subsidiary record of the capital stock outstanding, based on individual accounts for each stockholder and controlled by the account or accounts in the general ledger that show the amount of capital stock outstanding.

An account is opened with each stockholder and credited with the number of shares of stock which are purchased or which are alloted to the stockholder for any other consideration. Conversely, the stockholder is debited with the number of shares which he sells or otherwise transfers. It is important to bear in mind that ownership or proprietorship of each stockholder is indicated not by the par value or any other value of the shares held, but by the number of shares held, the value of which may be estimated quite readily, if desired.

To illustrate the recording of individual stock ownership in the stock ledger, the following illustration is given: A, B and C incorporate with a capital stock of $100,000.00, each share being valued at $100.00 par. A holds 500 shares, B owns 300 shares and C has 200 shares in his possession. In the general ledger, as has been indicated in a previous chapter, the Capital Stock account would show a credit balance of $100,000.00, or the total amount of capital stock outstanding. In order to maintain a record of the individual subscribers to this capital stock, three accounts would be opened in the stock ledger, one for A, one for B and one for C. A credit of 500 shares would be placed to A's account, 300 shares to B's account and 200 shares to C's account. The total of the balances of these three accounts, 1,000 shares, is thus equal to the credit balance of the Capital Stock account; 1,000 shares at $100.00 each equals $100,000.00.

The information is recorded in the stock ledger from the certificates of stock issued to A, B and C. As long as these individuals hold the same amount of stock as when the business was incorporated, there will be no change in the accounts in the stock ledger. If at a later date some of the stock is transferred from one of the shareholders to another, a change will have to be made in the accounts in the stock ledger. For example, A sells B and C each 100 shares. This transaction involves first, cancellation of A's ownership of these 200 shares and reissuing certificates to the new holder to complete the transfer. If A's holdings are in 100 share lots, it is necessary for him to have one certificate of 100 shares canceled to take care of B's new ownership, and another certificate, also of 100 shares, canceled in favor of C. These canceled certificates, signed by A, are pasted to the original stubs and new certificates issued to B and C. Following this, it is necessary to enter the transactions in the stock ledger, the information for these entries being obtained from the stubs of the canceled and the new certificates issued. A's account is debited for the 200 shares transferred and B's and C's accounts each credited for the purchase of 100 shares. When the posting is completed, the total credits still amount to 100 shares, or the amount of capital stock outstanding. This example not only illustrates the use of the stock ledger, but serves to illustrate that in a corporation while ownership of stock is constantly shifting, the amount of capital stock remains the same.

The above transactions, when posted to the stock ledger, appear in the accounts as follows:

A

1920				1920			
Feb.	1	To B	100 shares	Jan.	1	Original Issue	500 shares
	1	To C	100 shares				
	1	Balance	300 shares				
			500 shares				500 shares
				Feb.	1	Balance	300 shares

B

				1920			
				Jan.	1	Original Issue	300 shares
				Feb.	1	From A	100 shares

C

				1920			
				Jan.	1	Original Issue	200 shares
				Feb.	1	From A	100 shares

These individual accounts for each stockholder may be compared with the accounts of the proprietors in a partnership, except that values are shown in terms of shares, not in the amount of capital stock owned. There is this difference that, in maintaining records for the corporation, the capital stock is considered apart from the ownership of stock by various individuals, hence two sets of accounts are kept, the controlling account in the general ledger, which shows the outstanding capital stock in total, and the subsidiary accounts in the stock ledger, which indicate the amount of stock owned by the shareholders in the corporation. On the other hand, in a partnership, the capital accounts of the proprietors are the accounts used to show ownership in the business.

In order that the subsidiary accounts will check with the controlling ledger, it is necessary that accurate records be maintained in the stock ledger corresponding to the information kept in the stock certificate book. This requires that the number of shares represented by each certificate not canceled in the stock certificate book be listed in the stock ledger. The total of these shares should equal the total credit balances of the accounts in the stock ledger.

As far as the form of the stock ledger is concerned, some companies use the simple ruling of the ordinary ledger. This is satisfactory if few transfers are made, but in large companies, where stock is constantly changing hands, a more complete record is necessary. Furthermore, since a stockholder may "split" a certificate, or sell only a part of the shares represented therein, the number of shares sold will not always correspond exactly with the certificate. To record all these details, additional columns will be needed in the stock ledger, necessitating the use of a wider ledger page or card.

Let us assume that in the illustration previously cited, A's entire holdings are represented by one certificate of 500 shares, hence when he sells 100 shares each to B and C, he is splitting his certificate. This will necessitate the surrendering of A's certificate (No. 1) to the company. To show A's remaining interest in the corporation, a new certificate (No. 4) representing 300 shares is issued to him. Certificates of 100 shares each (Nos. 5 and 6) are issued to B and C to show their additional interests in the corporation. To record these details a form similar to the following might be used:

A

Date of transfer	To Whom Transferred	No. of Certificate Canceled	No. of Certificate Reissued	No. of Shares Transferred	Date of Issue or Transfer	From Whom Transferred	No. of Certificate Issued	No. of Shares Secured
1920					1920			
Feb. 1	B	1	4	100	Jan. 1	Original Issue	1	500
1	C	1	4	100				
1	Balance			300				
				500				500
					Feb. 1	Balance		300

Another form that is widely used to show the ownership of stock differs from the preceding form in that the balance of the account is extended after each transaction. It will be observed in the illustration below that practically the same data is recorded but that at a moment's glance the balance of certificates can be determined.

F. C. MADDEN, 1068 Locust St., Memphis, Tenn.

Date of Issue	Number of Certificate	From Whom Obtained or To Whom Transferred	Number of New Certificate Issued	Date of Assignment	Debit for Shares Transferred	Credit for Shares Obtained	Credit Balance
1920							
Jan. 2	...	Original issue	1	......	...	500	500
Jan. 18	1	To C. L. Whiting	54	Jan. 18	100	...	400
Mar. 1	8	From M. C. Watson	70	Feb. 1	...	50	450
July 20	70	To H. B. Miller	...	July 20	50	...	400
July 20	54	To H. B. Miller	102	July 20	100	...	300

The two forms explained and illustrated are those usually adopted by corporations. The exceptions are found in states whose statutes require the stock ledgers to conform to the style established by law. From the accountant's viewpoint, either of the two explained includes the essential details. Where the state in which the corporation is organized does not restrict the form of the stock ledger to any special kind, the secretary or accountant of the company is likely to select either one of these.

Whatever importance is placed on the form of the stock ledger arises from the fact that the stock ledger is legal evidence of the ownership of the stock. It is the evidence of the number of votes to which each stockholder is entitled. A stock certificate may be lost or destroyed, but the account still remains as proof of the stockholder's right to participate in the affairs of the corporation.

The Stock Transfer Book

In several states it is required that a corporation maintain a stock transfer book in which is recorded all the information with reference to transfers of shares. The law of New York requires that a transfer record be kept which will show the following information:

1. The date of making each transfer of stock.
2. The name of the stock and the number of shares thereof.
3. The serial number of each surrendered certificate.
4. The serial number of the certificate issued in exchange therefor.
5. The number of shares represented by said certificate.
6. The name of the party to whom said certificate was issued.
7. The number and face value of the adhesive stamps as affixed and required by the statute.

This information will appear as in the attached form in the stock transfer book:

NAME OF COMPANY

Date	Serial No. of Canceled Certificate	No. of Shares	By Whom Surrendered	To Whom Issued	Serial No. of New Certificate	No. of Share	No. and Face Value of Stamps				
							2c	4c	$1	Etc.	Val.

QUESTIONS FOR CLASS DISCUSSION

1

Name and explain the purpose of each of the *corporate* records.

2

Considerable significance is attached to the manner in which information is recorded in the minute book. Explain the reasons for the importance attached to this information.

3

State several cases in which the accountant would get data for his entries from the minute book.

4

A subscriber refuses to pay his subscription and contends that he is not under contract to do so. What is the answer to his contention?

5

Compare the information contained in the subscription book with that contained in the subscribers' ledger.

6

Explain the operation of the subscribers' ledger. Explain the source of the entries to this ledger.

7

"Ownership or proprietorship of each stockholder is indicated not by the par value or any other value of the shares held, but by the number of shares held." Why should this be the practice?

8

What effect does this practice have on the accounts kept with each stockholder?

9

The Capital Stock account shows that 10,000 shares of stock are outstanding. Explain how you would prove the correctness of this amount.

10

James Brown sells 100 shares of stoock in the X Corporation to H. King. Explain how Brown would transfer the title to these shares and the entries which would be necessary in the records of the X Corporation.

LABORATORY MATERIAL

Exercise No. 112

The Baker Publishing Corporation is incorporated in the State of Illinois. The incorporators are J. W. Baker, P. E. Curry, P. B. S. Peters and O. H. King. The corporation has an authorized capital stock of $200,000.00 common stock, par value $100.00 per share. This stock is subscribed as follows:

J. W. Baker	$50,000.00
P. E. Curry	20,000.00
P. B. S. Peters	15,000.00
O. H. King	15,000.00

It is decided to hold $100,000.00 capital stock for future use.

All subscriptions are paid for in cash.

J. W. Baker, the promoter of the corporation, obtains the original subscriptions and attends to all the details of the incorporation.

The corporation is to engage in the publication of text books and is to be located in Chicago, Illinois.

Required: 1. Assuming any facts that are necessary, show in outline form all the steps involved from the time of Baker's proposal of the organization to the stockholders until the corporation is ready to operate.

2. Prepare the application for incorporation taking into consideration the requirements of Illinois law as given in Chapter XXXVIII.

3. Show (in journal form) the entries which must be made on the general books; also show the entries made on the subsidiary records. Draft the forms necessary for the subsidiary records.

CHAPTER XLII

THE BALANCE SHEET

The Form and Content of the Balance Sheet

All Balance Sheets are alike in that they show three essential items of information: total assets, total liabilities and proprietorship. All Balance Sheets are not alike, however, with reference to the number and nature of the items which may compose the total assets, total liabilities and proprietorship. The Balance Sheet must, of necessity, show variations in the number and value of these items, if it is to fulfill the primary purpose for which it is prepared. The Balance Sheet is one of the important executive reports which provides information that serves as a basis for control and management on the part of the administrative officers of the business. In order to provide this information, it is necessary for it to show all the different kinds of assets which are being used in the conduct of the business, all the different kinds of obligations which the business has incurred and the nature of the items which compose its proprietorship. The nature of the items which compose the assets, liabilities and proprietorship of the business vary according to (a) the nature of the operations which the business performs, and (b) the form of organization under which the business is conducted.

Since the operations of no two businesses are exactly the same, and since the form of organization under which the business may be conducted may vary from the business conducted by a single individual to the corporation composed of thousands of stockholders, it is easy to see how the assets, liabilities and items of proprietorship, which may appear on the Balance Sheet, may vary widely in nature and number. In previous chapters, it has been assumed that the Balance Sheets discussed and illustrated were prepared for businesses which were organized under the form of the sole proprietorship or the partnership and conducted as trading enterprises. It is the purpose of this chapter to discuss the Balance Sheet as affected by (a) the corporate form of organization, and (b) the performance of manufacturing operations.

Balance Sheet for the Corporation

The general method of constructing a Balance Sheet for a corporation does not differ from that followed in other types of organizations. Assets and liabilities are classified and totaled in the usual manner, the difference representing the proprietorship of the business. There are, however, two points of variance between the Balance Sheet of a sole proprietorship and partnership and that of the corporation which are of sufficient importance to merit discussion:

1. The method of showing proprietorship is different.
2. The asset and liability items may differ in some respects, due to the fact that the corporation performs certain transactions which the sole proprietorship and partnership usually do not.

These points of difference are considered of sufficient importance to discuss and point out their effect on the Balance Sheet.

Showing of Proprietorship on the Corporation Balance Sheet

On the Balance Sheet of a corporation the proprietorship is not shown by indicating each proprietor's share of the capital as in the case of the partnership. Proprietorship in the corporate form is divisible primarily into two factors: capital stock and surplus. It is possible that capital stock alone may constitute proprietorship, as (a) when the company is just organized and no earnings have been made, or (b) when earnings which have been entered on the books of the company are entirely consumed by losses or dividends. For example, the total assets of a corporation are $829,735.50; the total liabilities are $329,735.50; the proprietorship is $500,000.00, which is listed under the single heading of Capital Stock. This indicates either that (a) the proprietorship of the corporation has not yet been increased by earnings (or the surplus earnings have not yet been ascertained and recorded), or (b) the surplus which at one time might have been shown as a part of present worth has been consumed by current losses or used for dividends and other purposes. Sometimes additional items are listed under proprietorship on the Balance Sheet of the corporation, but on analysis, it will be found that they are a part of either capital stock or surplus. Capital stock is sometimes subdivided because of the conditions affecting its authorization, issuance or ownership. Surplus is sometimes entered under more than one heading to show current earnings separate from past earnings, or to show some special disposition of a part of the earnings. A few illustrations will help to make these distinctions and divisions of proprietorship more apparent.

Illustration of the Method of Showing Proprietorship in a Corporation

The simplest method of showing the proprietorship on the Balance Sheet of a corporation is under two headings as follows:

Capital Stock	$200,000.00
Surplus	50,000.00
Proprietorship	$250,000.00

This indicates first, that all the authorized capital stock of the corporation has been issued and is outstanding, and second, that since the issuance of the capital stock, the present worth of the corporation through its earnings has increased $50,000.00.

If a part of the Capital Stock has not been issued, the proprietorship of the corporation will appear as follows:

Capital Stock Authorized	$200,000.00
Less Unissued Stock	75,000.00
Capital Stock Outstanding	$125,000.00
Surplus	50,000.00
Total Proprietorship	$175,000.00

This shows first, that $75,000.00 of the capital stock authorized has not yet been issued, and second, that proprietorship of the company has been increased $50,000.00 through earnings.

In case the total capital stock has been issued, but some part of it has been donated back to the company or purchased by the company, the proprietorship of the corporation may be shown as follows:

Capital Stock	$200,000.00
Less Treasury Stock	20,000.00
Capital Stock Outstanding	$180,000.00
Surplus	50,000.00
Proprietorship	$230,000.00

This shows (a) that $20,000.00 of the capital stock which has been issued has been returned to the company and is being held in the treasury, and (b) that the proprietorship of the company has been increased by earnings as indicated.

If desired, the surplus of the corporation may be divided so as to indicate that which has been earned in previous years and that which has been earned during the current year. In this case, the proprietorship of the corporation may be shown as follows:

Capital Stock		$200,000.00
Surplus:		
Previous Surplus	$35,000.00	
Earnings for 1920 . . .	15,000.00	
Total Surplus		50,000.00
Total Proprietorship		$250,000.00

In case both preferred stock and common stock are issued by the corporation it is necessary to show the amount of each as separate items as follows:

Common Stock	$100,000.00	
Preferred Stock	100,000.00	
Total Capital Stock Outstanding		$200,000.00
Surplus		50,000.00
Total Proprietorship .		$250,000.00

Asset and Liability Items in the Corporation Balance Sheet

The assets and liabilities which appear on the Balance Sheet of the corporation may not differ in any way from those shown on the Balance Sheet of a sole proprietorship or partnership. There are usually, however, certain distinguishing characteristics of the corporate Balance Sheet. These characteristics are:

1. The large amount of fixed assets.
2. The presence of "intangible" assets.
3. The presence of long-time liabilities.

While these items may appear on the Balance Sheet of the sole proprietorship or partnership, they are ordinarily confined to the corporate Balance Sheet.

Fixed Assets

Every business has need for some fixed assets. The amount and kind needed varies with the size of the business and the nature of its operations. The small retail store may possess only the furniture and fixtures used in the store. If merchandise is delivered to customers, delivery equipment is needed. In most cases such a store does not own the building in which the business is conducted, but large department stores and wholesale houses in many cases have their own buildings, and consequently have the two additional fixed assets of land and building. The manufacturing business may or may not own the building in which it operates, depending to a considerable degree upon the size of the business. In addition to the land, building and the furniture and fixtures required by the merchant, the manufacturer must use certain machinery and equipment in the manufacture of his product. In some cases he obtains this equipment by renting it and paying a "royalty" for its use, but in most cases he purchases it. It can be seen, therefore, that the fixed assets which appear most frequently on the Balance Sheet are: furniture and fixtures, machinery and equipment, delivery equipment, buildings and land.

All these fixed assets may be owned by a sole proprietorship or partnership, but a large investment of capital is required to own these assets and to have the additional funds needed to finance the current operations of the business. If a large amount of fixed assets are required in a business of any considerable size, it is usually necessary to resort to the corporate form of organization in order to obtain the necessary capital. This explains why it is customary to see a large amount of fixed assets only on the Balance Sheets of corporations. It is of course understood that there are many corporations whose operations are such that they need a very small amount of fixed assets. In the case of professional firms, such as lawyers, accountants and brokers, who may be incorporated, office furniture may be the only fixed asset required.

Intangible Assets

Assets which are termed "intangible assets," may appear on the Balance Sheet. The intangible asset of most frequent occurrence is *goodwill.* Webster's New International Dictionary defines goodwill as "the custom of any trade or business; the favor or advantage in the way of custom which a business has acquired beyond the mere value of what it sells, whether due to the personality of those conducting it, the nature of its location, its reputation for skill, promptitude, etc., or any other circumstance incidental to the business and tending to make it permanent." More briefly it is defined by the Treasury Department of the United States as follows: "Goodwill represents the value attached to a business over and above the value of the physical property." Goodwill arises as a result of a business winning the favor of its customers with the consequent probability that they will return to trade in the future. It is the value attached to the "business" which a firm has established.

Although goodwill is intangible and its amount is difficult to determine, it is nevertheless an asset of value, and a company which has established a goodwill has the right to compensation for it in case of the sale of the business. For example, if a well-known and prosperous firm sells its entire business to another and retires from the field, leaving the new owners without competition from the old, it is only just that the selling company should receive some compensation for the reputation which it has established. The members of the selling company have "earned" the "good will" of their patrons, and, since a large portion of the trade already established will accrue to the purchasing company, a price may be placed upon this, and this amount may properly be entered on the books of the new company as an asset under the title of "goodwill."

Goodwill should be entered on the records only when it has been purchased. Some firms estimate their goodwill and enter the estimated amount on their records as an asset. Until the goodwill is sold, it has no established value and should not be shown in the records or on the reports. It is improper from the viewpoint of both accounting and business management to "anticipate" a profit, that is, to show a profit on the records until the profit has been established by means of a sale. If goodwill is entered before it is sold, it is necessary to show an "anticipated" profit for the amount for which it is entered. Until the goodwill is sold the profit is not realized. Goodwill arises most frequently in the case of the purchase of a partnership by a corporation at a price which is more than the net worth of the partnership.

There are other intangible assets which will be discussed in subsequent chapters.

Long Term or Fixed Liabilities

The principal long-time liabilities which are found on the Balance Sheets of business firms are:

1. Mortgages Payable.
2. Bonds Payable.

The most simple form of long-time borrowing is the ordinary mortgage or "deed of trust." A mortgage transfers the title to certain property from the mortgagor to the mortgagee with the provision that the title will be reinvested in the mortgagor if the note which accompanies the mortgage is paid at the specified time. Mortgages may be classified as "real estate mortgages" and "chattel mortgages." The former conveys the title to real estate as security for the debt evidenced by the accompanying note, while the latter conveys the title to personal property for the same purpose. In the latter case, the mortgage is usually for a relatively short time and is more frequently given by an individual to obtain property for personal use.

The mortgage is not used extensively by business firms as a means of securing money. This is evidenced by the fact that it does not occur frequently on the Balance Sheets of business firms. It is used more frequently by sole proprietors, partnerships and small corporations as a means of securing funds with which to purchase real estate.

A bond is a promise under seal to pay a definite sum of money at a stated time with an agreement to pay interest at a stipulated rate. Usually there is a pledge of certain properties as security for payment of both principal and interest, but bonds may be issued without being accompanied by a mortgage or being secured by a particular piece of property.

A corporation may borrow money by issuing either bonds or notes. If it desires to borrow only a small amount or for a short time, notes are usually used; but if the amount to be borrowed is large, or is for a long period of time, bonds are issued. The difference between a note and a bond of a corporations is often not very great, but the bond is usually more formal in phraseology and is executed under seal. Notes and mortgages are executed singly, as agreements, ordinarily between two parties, while bonds are issued in large numbers and are offered to the general public.

(Continued on page 583)

THE KEYSTONE MANUFACTURING CO.

Balance Sheet, December 31, 1920

CURRENT ASSETS:			
Cash		7,950.00	
Notes Receivable		8,250.00	
Accounts Receivable	25,000.00		
Less Reserve for Bad Debts	2,000.00	23,000.00	
Inventories:			
Raw Materials	18,000.00		
Goods in Process	20,000.00		
Finished Goods	20,000.00	58,000.00	
Total Current Assets			97,200.00
FIXED ASSETS:			
Office Equipment	15,000.00		
Less Reserve for Depreciation	1,500.00	13,500.00	
Machinery and Equipment	100,000.00		
Less Reserve for Depreciation	15,000.00	85,000.00	
Buildings	80,000.00		
Less Reserve for Depreciation	7,500.00	72,500.00	
Land		50,000.00	
Goodwill		50,000.00	
Total Fixed Assets			271,000.00
DEFERRED CHARGES TO EXPENSE:			
Prepaid Taxes		1,790.00	
Unexpired Insurance		2,000.00	
Prepaid Advertising		1,500.00	
Total Deferred Charges			5,290.00
TOTAL ASSETS AND DEFERRED CHARGES			373,490.00
Liabilities and Proprietorship			
CURRENT LIABILITIES:			
Notes Payable		5,000.00	
Accounts Payable		15,000.00	
Accrued Interest on Bonds		9,000.00	
Accrued Payroll		2,000.00	
Total Current Liabilities			31,000.00
FIXED LIABILITIES:			
Bonds Payable			140,000.00
TOTAL LIABILITIES			171,000.00
PROPRIETORSHIP:			
Capital Stock (Common) Authorized	200,000.00		
Capital Stock Unissued	50,000.00		
Capital Stock Outstanding		150,000.00	
Surplus		52,490.00	
TOTAL PROPRIETORSHIP			202,490.00
TOTAL LIABILITIES AND PROPRIETORSHIP			373,490.00

Illustration No. 58—Balance Sheet for a Manufacturing Business

(Continued from page 581)

Although the sole proprietor and the partnership may legally issue bonds, they very seldom do so, for the investing public does not care to invest in the bonds of a business which may be terminated at any time.

Effect of Manufacturing Operations on the Balance Sheet

The effect of manufacturing operations on the items which appear on the Balance Sheet is twofold:

1. A large amount of fixed assets is required.
2. Additional inventories are necessary.

It has been explained previously, that a manufacturing business, in addition to its land, buildings and furniture and fixtures, must have machinery and manufacturing equipment with which to carry on its operations. In most manufacturing businesses machinery and equipment constitute one of the largest assets of the business, hence is an important item on the Balance Sheet of a manufacturing company.

The activities of a manufacturing business consist in the purchasing of materials, the performance of certain operations on them, and finally, the sale of the manufactured product. Usually there are three kinds of goods or materials on hand. The first consists of the purchased materials which have not yet been worked; these are known as "Materials," or sometimes as "Raw Materials." The second consists of the materials which are in the factory and are having operations performed on them; these are termed "Goods in Process." The third consists of the materials on which manufacturing operations have been completed and which are held ready for sale; these are termed "Finished Goods." On the Balance Sheet these inventories are shown as follows:

INVENTORIES:		
Materials	$18,000.00	
Goods in Process	20,000.00	
Finished Goods	20,000.00	$58,000.00

QUESTIONS FOR CLASS DISCUSSION

1

The firm of Meyer & Haskins is a partnership dealing in automobile supplies. Later they incorporate as The Meyer-Haskins Supply Company, but carry on the same operations. What differences would there be between the Balance Sheet of Meyer & Haskins and that of The Meyer-Haskins Supply Company?

2

A few years after incorporating, the company decides to manufacture certain supplies which it has formerly been purchasing and purchases the necessary buildings and equipment for this purpose. Compare the Balance Sheet of The Meyer-Haskins Supply Company at time of the company's organization with its Balance Sheet after it commences manufacturing operations.

3

"The corporation performs certain transactions which the sole proprietorship and partnership do not." To what kind of transactions does this statement refer?

4

A corporation is organized with $900,000.00 capital stock. Two years later, when its assets amount to $2,315,416.82, and its liabilities amount to $1,415,416.82, the proprietorship remains at $900,000.00, which represents the original capital stock. How can you account for this lack of change in the proprietorship?

5

It is reported to you that a certain large steel company has increased its proprietorship $1,250,000.00. Mention some of the possible ways in which this increase may have been secured.

6

Statistics show that the greater number of corporations are engaged in the business of manufacturing and merchandising, and the smaller number in professional work, such as accounting and law. What is there about these different kinds of businesses that makes the corporate form so important in some fields and very much less so in others?

7

Two school supply stores in the same district carry about the same grade of materials at about the same price. The success of the two stores, however, is not the same. The owner of Store A which receives seventy-five per cent of the trade of the whole district believes in being pleasant and cordial to the school children who are his principal customers. The owner of Store B never shows any interest in them nor makes any effort to please them. What value of business management has Dealer B overlooked? How will Dealer A be able to prove to Dealer B the value of this policy of service and the reason for his holding seventy-five per cent of the trade?

8

In what way can a large corporation whose chief executives can not have any personal contact with their customers establish goodwill?

9

Is there any standard by which to know what goodwill is worth?

10

Why are bonds not often resorted to as a means of raising money for partnerships?

11

What differences are there in the characteristics of a mortgage, a note and a bond? What are the similarities?

12

Compare the nature of the inventories for a business engaged in retail selling and for a business engaged in manufacturing and show the importance of this distinction with reference to the construction of the Balance Sheet.

LABORATORY MATERIAL

Exercise No. 113

THE STERNE MANUFACTURING COMPANY

Trial Balance, December 31, 1921

Cash	$ 4,000.00	
Notes Receivable	1,200.00	
Accounts Receivable	14,000.00	
Raw Materials, January 1, 1921	8,000.00	
Goods in Process, January 1, 1921	5,000.00	
Finished Goods, January 1, 1921	12,000.00	
Furniture and Fixtures	8,000.00	
Reserve for Dep. of Furn. and Fix.		$ 1,600.00
Machinery and Tools	40,000.00	
Reserve for Dep. of Machinery and Tools.		12,000.00
Land	40,000.00	
Buildings	30,000.00	
Reserve for Depreciation of Buildings		5,000.00
Goodwill	40,000.00	
Accounts Payable		5,000.00
Bonds Payable		40,000.00
Surplus		18,700.00
Capital Stock		100,000.00
Sales		100,000.00
Purchases, Raw Materials	30,000.00	
Factory Expense	9,500.00	
Labor	20,000.00	
Salaries, Sales Department	6,000.00	
Advertising	3,000.00	
Delivery Expense	1,000.00	
Office Salaries	8,000.00	
Office Supplies	600.00	
Interest on Bonds	2,000.00	
	$282,300.00	$282,300.00

INVENTORIES, December 31, 1921: Raw Materials, $8,250.00; Goods in Process, $9,000.00; Finished Goods, $10,000.00.

DEPRECIATION: Furniture and Fixtures, 10%; Machinery and Tools, 20%; Buildings, 4%.

BAD DEBTS: 2% of Accounts Receivable outstanding.

Instructions: 1. Prepare a Working Sheet. 2. Prepare a Balance Sheet. Preserve the Working Sheet for future use.

Exercise No. 114

THE CRAWFORD MANUFACTURING COMPANY

Trial Balance, December 31, 1921

Cash	$ 37,000.00	
Notes Receivable	54,500.00	
Accounts Receivable	247,000.00	
Raw Materials, January 1, 1921	5,500.00	
Goods in Process, January 1, 1921	6,500.00	
Finished Goods, January 1, 1921	10,000.00	
Furniture and Fixtures	4,400.00	
Reserve for Dep. of Furn. and Fix.		$ 1,400.00
Machinery and Equipment	150,000.00	
Reserve for Dep. of Mach. and Equip.		15,000.00
Delivery Equipment	18,000.00	
Reserve for Dep. of Delivery Equipment		1,800.00
Factory Building	110,000.00	
Reserve for Dep. of Factory Building		8,000.00
Administration Building	55,000.00	
Reserve for Dep. of Administration Bldg.		1,000.00
Factory Land	125,000.00	
Goodwill	180,000.00	
Notes Payable		10,000.00
Bonds Payable		100,000.00
Accounts Payable		25,000.00
Capital Stock		400,000.00
Surplus		250,000.00
Sales		650,000.00
Purchases, Raw Materials	137,000.00	
Labor	190,000.00	
Factory Expense	32,500.00	
Selling Expense	19,800.00	
Advertising	10,000.00	
Delivery Expense	5,000.00	
Office Expense	12,000.00	
Insurance	7,500.00	
Taxes	30,500.00	
Interest on Bonds	15,000.00	
	$1,462,200.00	$1,462,200.00

(Continued on page 588)

INVENTORIES, December 31, 1921: Raw Materials, $7,000.00; Goods in Process, $8,250.00; Finished Goods, $11,000.00.

ACCRUALS: Interest on Notes Receivable, $2,500.00; Interest on Bonds, $800.00.

DEFERRED CHARGES: Unexpired Insurance, $2,000.00; Taxes, $10,500.00. (Three-fourths of the expired insurance and taxes is to be charged to Factory Expense and one-fourth to Office Expense.)

DEPRECIATION: Furniture and Fixtures, 10%; Machinery and Equipment, 15%; Delivery Equipment, 20%; Factory Building, 5%; Admin. Building, 4%.

BAD DEBTS: 2% of Accounts Receivable outstanding.

Instructions: 1. Prepare a Working Sheet. 2. Prepare a Balance Sheet. Preserve the Working Sheet for future use.

Exercise No. 115

THE BOOK EXCHANGE CORPORATION TRIAL BALANCE, DEC. 31, 1921

Cash	$ 15,000.00	
Accounts Receivable	51,000.00	
Inventory: Rare Books, January 1, 1921	125,000.00	
Inventory: Regular Stock, Jan. 1, 1921	270,000.00	
Inventory: Second-Hand Books, January 1, 1921	68,000.00	
Furniture and Fixtures	3,790.00	
Reserve for Dep. of Furn. and Fix.		$ 650.00
Delivery Equipment	900.00	
Reserve for Dep. of Delivery Equipment		90.00
Building	73,000.00	
Reserve for Depreciation of Building		2,000.00
Land	100,000.00	
Goodwill	50,000.00	
Accounts Payable		102,350.00
Notes Payable		50,750.00
Surplus		150,000.00
Capital Stock		180,000.00
Sales		514,000.00
Purchases	185,000.00	
Administrative Expense	19,000.00	
Selling Expense	15,600.00	
Advertising	1,000.00	
Delivery Expense	2,500.00	
Insurance	10,000.00	
Taxes	7,500.00	
Interest on Notes Payable	2,550.00	
	$999,840.00	$999,840.00

Inventories, December 31, 1921:	
Rare Books	$110,000.00
Regular Stock . . .	117,000.00
Second-Hand	75,000.00
Accruals:	
Administrative Exp. .	$3,500.00
Deferred Charges:	
Insurance	$5,000.00
Advertising	375.00
Taxes	2,500.00
Depreciation:	
Furniture and Fixtures	10%
Delivery Equipment .	20%
Building	3%
Bad Debts:	
½% of Sales.	

Instructions: 1. Prepare a Working Sheet.
2. Prepare a Balance Sheet.
Preserve the Working Sheet for future use.

CHAPTER XLIII

THE STATEMENT OF PROFIT AND LOSS

Relationship of the Profit and Loss Statement to the Balance Sheet

Business activities are carried on primarily for the purpose of increasing the capital employed in the conduct of the business. It is for this reason that capital is invested in the carrying on of industry and trade. In the case of the individual firm, the increase of capital which results from the operations of the business is shown by an increase in proprietorship. In order to determine the success of the activities of any particular business it is necessary (a) to know the increase in the proprietorship which has resulted from the operations of the business, and (b) to have a summary of the income-producing efforts which have resulted in the increase. The Balance Sheet shows at any particular time the assets, the liabilities and the resulting net worth, but it does not show how the business progressed during any given period or why the proprietorship increased. This information must be obtained by another report which provides a summary of the expenses and income.

Two groups of forces or agencies are found in every business: those that tend toward producing an income or profit, and those that tend toward diminishing the income. The Statement of Profit and Loss is a chronicle of the interaction of these two forces, and is consequently of prime importance to the executive officers of the business on whose control the progress of the enterprise so largely depends. The Balance Sheet shows the condition of affairs after certain changes have been brought about; the Profit and Loss statement shows the causes of these changes. Each is complementary to the other, and when they are read together, it is possible to tell the history of the business activities for the period concerned.

Form of the Statement of Profit and Loss for the Corporation

The form of the Statement of Profit and Loss does not differ essentially whether made for a sole proprietorship, a partnership or a corporation. The main facts which should always be shown on the Statement of Profit and Loss are:

1. The source of the income (sales of commodities or services).
2. The cost of securing that commodity or service, whether by purchase or production.
3. The operating expenses of the business.
4. The nonoperating income.
5. The nonoperating expenses.

The Statement of Profit and Loss of a corporation may contain a sixth division which will show the disposition of the net income. In the sole proprietorship and in the partnership the net profit is either withdrawn or credited direct to the owners. In the corporation the disposal of the net profit is not so simple a matter. It may be distributed as dividends, carried to the Surplus account, set aside for some particular purpose or such other disposition made of it as the directors, acting in accordance with the charter and the by-laws may deem desirable. One who is interested in the earnings of the business will usually be interested in the disposition of these earnings, so that it is desirable to show this disposition on the Statement of Profit and Loss. Sometimes the disposition to be made of the earnings has not been determined at the time the Statement of Profit and Loss is made, in which case it is impossible to add the final section.

The principal items of information shown by the Statement of Profit and Loss are indicated by the following skeleton outline:

Section 1.—Gross Income from Sales.
Less: Returns and Allowances.
Net Income from Sales.

Section 2.—Cost of Goods or Services Sold.
Gross Profit on Sales.

Section 3.—Operating Expenses.
Net Profit on Sales.

Section 4.—Nonoperating Income.
Gross Income.

Section 5.—Nonoperating Expense.
Net Income for Period.

Section 6.—Appropriation of Income.
Net Surplus for Period.

Stated in the form of equations, the Statement of Profit and Loss may be represented by the following:

Net Sales — Cost of Goods = Gross Profits on Sales.

Gross Profits on Sales — Operating Expenses = Net Profit on Sales.

Net Profit on Sales + Nonoperating Income = Gross Income.

Gross Income — Nonoperating Expense = Net Income for Period.

Net Income — Appropriations of Income = Net Surplus for Period.

Statement of Profit and Loss for Different Types of Industries

The foregoing outline can be used as the basis for the Statement of Profit and Loss for any industry regardless of the nature of its operations. Although the general form will be the same, the individual items which make up the different sections will vary in different businesses. The Statement of Profit and Loss affords a summary of the expense and income operations of the business, and these operations vary to a considerable degree. Thus, the principal source of income for a mercantile store is sales; of a bank, the interest which it receives on loans; of a firm of lawyers, the fees received for services; of a commission house, the commissions received on sales. The first section of the Statement of Profit and Loss of each of these firms will vary accordingly. In the same manner, the operations of the business vary, and these variations affect the individual items in the other sections of the Statement of Profit and Loss. In previous chapters the Statement of Profit and Loss for a mercantile firm has been discussed. In the present chapter the Statement of Profit and Loss for a manufacturing firm will be discussed and illustrated.

Statement of Profit and Loss for Manufacturing Business

The chief feature which distinguishes the Statement of Profit and Loss of a manufacturing business from that of a mercantile business is the section showing "Cost of Goods Sold." In a mercantile business goods are purchased, placed on the shelves and resold again without any operations being performed on them. In a manufacturing business the materials purchased are subjected to the operations of the factory which transform them into the finished product offered for sale. In the manufacturing process it is necessary to employ labor and to incur expenses. Consequently, the cost of the finished product consists of the cost of the materials used plus the cost of the labor employed plus the expenses incurred in its manufacture. The determination of the cost of the goods sold is complicated by the fact that at the end of each fiscal period there are materials on hand which have not been used, jobs in the factory which are not completed and finished goods which have not been sold. In determining the cost of goods sold, therefore, it is necessary to consider three different inventories on hand at the beginning of the fiscal period, three different inventories on hand at the end of the fiscal period, the purchase of materials during the period, the cost of labor for the period and the manufacturing expenses incurred during the period.

In tabular form the information which must be considered in determining the cost of goods sold is as follows:

Inventories Beginning of Period:
  Raw Materials.
  Goods in Process.
  Finished Goods.
Material Purchases.
Labor.
Manufacturing Expense.

Inventories at End of Period:
  Raw Materials.
  Goods in Process.
  Finished Goods.

In order to have information with reference to each of these items, it is necessary to have accurate records showing the cost incurred in connection with each part of the manufacturing process. In Illustration No. 59 the costs which accumulate in the course of manufacture are shown as they arise in the various stages.

Raw materials purchased for manufacturing purposes are placed in the storeroom until they are needed in the factory. The costs arising in connection with the raw materials consist of the original invoice price, the cost of transporting them to the storeroom and the charges created in the storing of the materials before they are transferred to the factory. The raw materials are transferred from the storeroom to the factory as they are needed in the manufacturing operations. As they pass on in the manufacturing process, other costs develop. These costs are labor and manufacturing expense. Labor is the wages paid employees who manufacture the

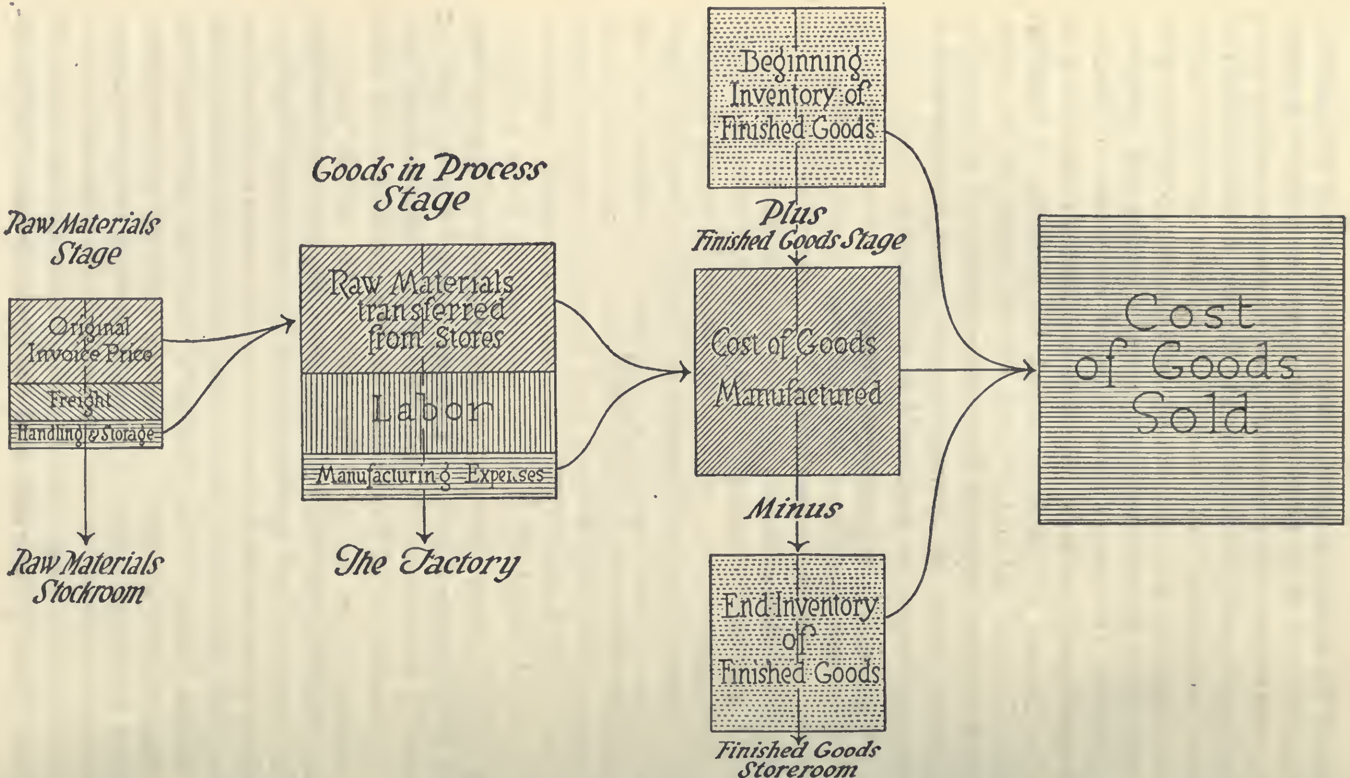

Illustration No. 59—Diagram Showing Costs Which Accumulate in the Course of Manufacture products of the factory (usually referred to as direct labor). Manufacturing expense includes the salary of the superintendent and his assistants (usually referred to as indirect labor), repairs and depreciation on the buildings and equipment, heat, light, power and others of similar nature.

When the raw material has passed through the manufacturing process, the articles pass into the finished-goods stage. In this stage they correspond with the *purchases* of the mercantile firm. There is usually an inventory of finished goods at the beginning and at the end of the period. To determine the cost of goods manufactured, it is necessary to add the cost of the goods manufactured to the beginning inventory and subtract the ending inventory. It is easy to see the similarity between this method and the one employed in determining the cost of goods sold in a mercantile business where the purchases are added to the beginning inventory and the ending inventory subtracted.

The significance of determining accurately the nature of the costs in Section 2 of the Statement of Profit and Loss has thus been illustrated. While no detailed explanation has been given of the various methods of computing and recording costs, the essential facts have been explained. The result of subtracting Section 2 from the net sales on the Statement is to ascertain the gross profit on sales. It is then necessary to show the cost of operating the business; this cost is ordinarily composed of at least two divisions, selling expenses and administrative expenses. When these are subtracted from the gross profit, the result is net profit on sales. The items of nonoperating income are added to the net profit on sales to obtain the gross income. The gross income minus the nonoperating expenses gives the net income for the period. Finally, the net income may be left intact, or, as in Illustration No. 60, it may be appropriated in part for dividends and for other purposes.

Illustration of Statement of Profit and Loss

A Statement of Profit and Loss, illustrating the principles discussed in the preceding pages, will appear as in Illustration No. 60.

Simplification of Statement of Profit and Loss by Use of Schedules

From the foregoing statement it may be seen that numerous items of expense and income arise in connection with the operations of a manufacturing business. In a large manufacturing business these items are much more numerous than in the illustration.

(Continued on page 597)

INDIANA AUTOMOBILE CO.

Statement of Profit and Loss for Year Ending December 31, 1920

Gross Sales		477,525 00	
Less: Returns and Allowances		2,690 00	
Net Sales			474,835 00
Less Cost of Goods Sold			
Raw Materials:			
Inventory, January 1, 1920	35,000.00		
Purchases, net	116,000.00		
	151.000.00		
Less: Inventory, December 31	21.000.00		
Cost of Material Used		130,000 00	
Labor		151,200 00	
Manufacturing Expenses:			
Superintendence	15,000.00		
Heat, Light and Power	10,000.00		
Factory Supplies	5,000.00		
Machinery Repairs	1,200.00		
Building Maintenance and Repairs	1,000.00		
Sundry Factory Expenses	900.00	33,100 00	
Add:		314,300 00	
Goods in Process, January 1	50,000.00		
Finished Goods, January 1	42,300.00	92,300 00	
Deduct:		406,600 00	
Goods in Process, December 31	38,200.00		
Finished Goods, December 31	36,900.00	75,100 00	
Total Cost of Goods Sold			331,500 00
Gross Profit on Sales			143,335 00
Operating Expenses			
Selling Expenses:			
Salaries	15,000.00		
Commissions	2,500.00		
Traveling Expenses	8,000.00		
Advertising	25,000.00	50,500 00	
Administrative Expenses:			
Salaries	10,000.00		
Stationery and Printing	1,000.00		
Postage	300.00		
General Expenses	800.00	12,100 00	62,600 00
Net Profit on Sales			80,735 00
Other Income			
Interest on Notes Receivable	275.00		
Cash Discount on Purchases	500.00		
Interest on Bank Balances	110.00		885 00
Total Income			81,620 00
Other Deductions from Income:			
Interest on Bonds	2,000.00		
Cash Discount on Sales	1,500.00		3,500 00
Net Profit for the Year			78,120 00
Less Appropriation for Dividends			20,000 00
NET SURPLUS FOR THE YEAR			58,120 00

Illustration No. 60—Statement of Profit and Loss

If all these items are shown on the Statement of Profit and Loss, it becomes very lengthy, difficult to read and the main facts become somewhat obscured by the details. Accordingly, it is now becoming a practice to reduce the Statement of Profit and Loss to the main data, and to supplement this brief statement of the condition of the company with schedules of the details. These detailed reports include a Schedule of Cost of Goods Sold, a Schedule of Operating Expenses and possibly a Schedule of Other Income and Deductions. These will be discussed in order.

Schedule of Cost of Goods Sold

Since cost of goods sold is usually the largest section of the Statement of Profit and Loss, it is usually the first to be placed in schedule form. When the cost of goods sold is shown in a separate schedule, greater detail may be shown if desired. For example, if the cost of goods sold in the preceding statement were transferred to a schedule, it might appear as in Illustration No. 61.

SCHEDULE NO. 1—COST OF GOODS SOLD
To Accompany Profit and Loss Statement for Year Ending December 31, 1920
Indiana Automobile Company

Raw Materials:				
Inventory, January 1, 1920			35,000 00	
Purchases	120,000.00			
Less Returns & Allowances	5,000.00	115,000.00		
Freight In and Cartage		1,000.00	116,000 00	
			151,000 00	
Less Inventory, December 31			21,000 00	130,000 00
Labor				151,200 00
Factory Expenses:				
Superintendence			15,000 00	
Heat, Light and Power			10,000 00	
Factory Supplies			5,000 00	
Machinery Repairs			1,200 00	
Building Maintenance and Repairs			1,000 00	
Sundry Factory Expenses			900 00	33,100 00
Add:				314,300 00
Goods in Process, January 1	50,000.00			
Finished Goods, January 1	42,300.00		92,300 00	92,300 00
DEDUCT:				406,600 00
Goods in Process, December 31	38,200.00			
Finished Goods, December 31	36,900.00		75,100 00	75,100 00
Cost of Goods Sold				331,500 00

Illustration No. 61—Schedule of Cost of Goods Sold

Other Schedules

As suggested, the other schedules may include one for operating expenses and one for other income and deductions. These are of the same detailed nature, as they all serve the same function, namely, to give a complete report of the factors and costs entering into the final result. Consequently, a Schedule for Operating Expenses might include a detailed tabulation of the nature of the salaries under selling expense, as for sales managers, salesmen and clerks, with the amount for each group. Under advertising expense might be given an itemized account of the outlays for each kind of advertising, as local, media, other city newspaper, periodicals and bill posters. In addition to these, statements may be made of any item where specific and extraordinary information is needed. For instance, the general manager and sales manager would be interested in data of various kinds concerning sales by departments, if the business were so organized; by geographical districts, if sales plans were based on a territorial division; or by branches, if more than one plant is maintained. In a later chapter a discussion will be given of reports that might be made for the use of executives. The purpose of this chapter is to explain the possibilities in the correct use of the Statement of Profit and Loss. Reduced to the essential facts, the statement would appear as in Illustration No. 62.

INDIANA AUTOMOBILE COMPANY
Profit and Loss Statement for Year Ending December 31, 1920

Gross Sales	477,525.00	
Less: Returns and Allowances	2,690.00	
Net Sales		474,835.00
Less: Cost of Goods Sold, Schedule No. 1		331,500.00
Gross Profit on Sales		143,335.00
Operating Expenses, Schedule No. 2		
Selling Expenses	50,500.00	
Administrative Expenses	12,100.00	62,600.00
		80,735.00
Other Income, Schedule No. 3		885.00
Total Income		81,620.00
Other Deductions from Income, Schedule No. 4		3,500.00
Net Profit for the Year		78,120.00
Less Appropriations for Dividends		20,000.00
Net Surplus for the Year		58,120.00

Illustration No. 62—Simplified Form of Statement of Profit and Loss

This illustration of a simplified statement, with accompanying schedules of detailed information, shows that while reports should conform to correct principles and best practice, they must be sufficiently flexible to meet the particular needs of the firm which is being served. In the case just cited, stockholders and prospective investors would ordinarily not care for further information than is supplied by the brief statement, while the board of directors and officers would need practically all details for planning future policies. The statement in its complex form might be used by the board of directors, but the simple form with the accompanying schedules would probably be more satisfactory, since it can be read without confusion and with less analysis than the lengthy report. The separate schedules would be of special help to departmental managers. For instance, the production manager as well as the manager of the stockroom would be aided by the schedule of cost of goods sold. The sales and advertising managers would need the schedule of operating expenses. In fact, by this method, the needs of all parties interested in the financial affairs of the corporation are satisfied.

QUESTIONS FOR CLASS DISCUSSION

1

The Balance Sheet of the Blanco Company shows an increase in proprietorship of $258,976.00 over a period of ten months. Inasmuch as this fact assures anyone interested in the corporation that it has "made money," why should there be need for a Statement of Profit and Loss?

2

During a time of small profits, people usually discuss the question of "reducing expenses." How will a Statement of Profit and Loss assist them?

3

Review the various items of information that must be shown in a Statement oof Profit and Loss and explain the relationship of each one to the other.

4

Using a Statement of Profit and Loss for a manufacturing business and one for a mercantile business show how the items in the respective statements are likely to differ.

5

Explain the various elements which make up the cost of goods sold by a manufacturing business.

6

A well-organized accounting system includes the use of accurate records as the basis of valuing inventories. Why should this be more desirable than making valuations from opinion and comparison with other businesses? Would it make any difference if the valuations were to be made for a small manufacturing business producing but one commodity or for a large company manufacturing a variety of products?

7

There are usually at least three kinds of expenses in a manufacturing business:

Costs arising from Producing Goods.
Selling Expenses.
Administrative Expenses.

Distinguish between these and show what part each plays in the Statement of Profit and Loss:

8

Why is it customary and desirable to indicate the items "Other Income" and "Other Deductions from Income" as distinct from elements entering into the determination of net profit?

9

Name the persons interested in a Statement of Profit and Loss who would want the detailed account and those who would prefer the summarized statement with accompanying schedules.

10

"Flexibility at the same time as recognition of the correct principles and best practice should be a characteristic of modern accounting." Just how does the use of schedules meet this requirement?

LABORATORY MATERIAL

Exercise No. 116

HOFFMAN-MANNING, TRIAL BALANCE, DECEMBER 31, 1921

Cash	$ 8,000.00	
Notes Receivable	2,500.00	
Accounts Receivable	18,000.00	
Raw Materials Inventory, Jan. 1, 1921	7,000.00	
Goods in Process Inventory, Jan. 1, 1921	10,000.00	
Finished Goods Inventory, Jan. 1, 1921	3,000.00	
Trading Goods Inventory, Jan. 1, 1921	4,000.00	
Office Furniture	2,000.00	
Delivery Equipment	15,000.00	
Reserve for Dep. of Delivery Equipment		$ 1,500.00
Machinery and Tools	50,000.00	
Reserve for Dep. of Machinery and Tools		8,000.00
Building	60,000.00	
Reserve for Depreciation of Buliding		7,500.00
Land	20,000.00	
Accounts Payable		10,000.00
Bonds Payable		40,000.00
Capital Stock		100,000.00
Surplus		11,775.00
Sales		135,000.00
Sales Returns and Allowances	8,300.00	
Purchases, Raw Materials	31,200.00	
Purchases Ret. and Allow., Raw Materials		1,250.00
Purchases, Trading Goods	20,000.00	
Purchases Ret. and Allow., Trading Goods		3,100.00
Discount on Purchases		2,500.00
Labor	25,000.00	
Heat, Light and Power	3,000.00	
Repairs, Machinery and Tools	2,000.00	
Office Salaries	8,000.00	
Stationery and Printing	1,000.00	
Selling Expenses	16,000.00	
Admr. Expenses	5,125.00	
Insurance	500.00	
Taxes	1,000.00	
	$320,625.00	$320,625.00

INVENTORIES, December 31, 1921:

Raw Materials . . .	$ 8,000.00
Goods in Process . .	150.00
Finished Goods . . .	4,500.00
Trading Goods . . .	3,270.00

DEPRECIATION:

Office Furniture . . .	10%
Delivery Equipment .	20%
Machinery and Tools .	20%
Building	5%

RESERVE FOR BAD DEBTS:

1% of Sales.

ACCRUED ITEMS:

Interest on Bonds . .	$ 1,250.00

PREPAID ITEMS:

Insuranee	$ 200.00

Instructions: 1. Prepare a Working Sheet.

2. Prepare a Balance Sheet.

3. Prepare a detailed Statement of Profit and Loss.

4. Prepare a summarized statement supported by Schedule of Cost of Goods Sold and Schedule of Operating Expenses.

Exercise No. 117

Prepare a Statement of Profit and Loss from the Trial Balance of the Sterne Manufacturing Company given in Chapter XLII and the Working Sheet prepared in Exercise No. 113.

Exercise No. 118

Prepare a Statement of Profit and Loss from the Trial Balance of the Crawford Manufacturing Company given in Chapter XLII and the Working Sheet prepared in Exercise No. 114.

Exercise No. 119

Prepare a Statement of Profit and Loss from the Trial Balance of the Book Exchange given in Chapter XLII and the Working Sheet prepared in Exercise No. 115. Also prepare a brief Statement of Profit and Loss supported by schedules showing the Schedule for Inventories.

CHAPTER XLIV

CONSTRUCTION AND INTERPRETATION OF PARTICULAR ACCOUNTS

Accounts to be Considered

In the discussion of the Balance Sheet and the Statement of Profit and Loss in Chapters XLII and XLIII, particular emphasis has been placed on the method of presenting information with reference to the following:

1. The proprietorship of a corporation.
2. Fixed assets.
3. Intangible assets.
4. Fixed liabilities.
5. Items composing the cost of goods manufactured.

In order that this information may be available for the preparation of financial statements, it is necessary that appropriate accounts be maintained. The accounts necessary to show the proprietorship of a corporation were discussed in previous chapters. It is the purpose of the present chapter to discuss the accounts necessary to provide the other items of information stated above. There is information in addition to that stated in the foregoing list which is shown on the Balance Sheet and Statement of Profit and Loss discussed in the two preceding chapters, and accounts are necessary to provide this information. It is assumed, however, that the student is familiar with the construction and interpretation of these accounts.

Accounts with Fixed Assets

A detailed discussion of accounts with fixed assets will not be given at this time, since it is assumed that the student is familiar with the elementary principles governing the construction of such accounts. The purpose of the present discussion is to emphasize some of the more important principles which govern the construction and interpretation of fixed asset accounts and to explain the accounts kept with the fixed assets peculiar to a manufacturing business.

An account with a fixed asset should be debited with the original cost of the asset and with the cost of any additions made to the asset. In addition to the asset account, which always shows the cost of the asset, an account must be maintained with the reserve for depreciation of the fixed asset in order to keep a record of the decrease in value which is estimated to have occurred through its approach to the end of its useful life.

The generally accepted basis of valuation of the fixed assets for accounting purposes, then, is that of *cost less accrued depreciation.* The method of calculating, recording and reporting the accrued depreciation will be explained fully.

Charges to Capital versus Charges to Revenue

Although the principles involved in the valuation of fixed assets seem logical enough, it is not always easy to apply these principles correctly and consistently. The difficulty in doing so arises from two main sources: (a) the difficulty of establishing a correct rate for estimating depreciation; (b) the difficulty of distinguishing in every case between expenditures which add to the value of the fixed assets and those which are chargeable to current expenses.

The first source of difficulty, that of determining the proper depreciation rate, is largely a matter of estimating the probable useful life of the asset. Such estimates are best made on the basis of experience with similar assets, either in the business in question or in other concerns of like nature. An adequate record of the life and performance of each unit of fixed assets used in the business will aid greatly in determining future depreciation rates and revising existing rates. A method of keeping such a record is illustrated in Chapter XLVII.

The other problem, that of distinguishing between expenditures for current expenses and those for additions to fixed assets, must be considered briefly. The problem may be divided into two parts, as follows: (1) What expenditures are properly chargeable to the original cost of the assets? (2) What expenditures are properly chargeable as additions to the value of the asset?

All expenditures incurred in connection with a fixed asset up to the time the asset is ready for use, may be considered as a part of its cost and shown as a debit to the asset account. In the case of a machine purchased for use in a factory, the following items may be considered as a part of the original cost:

1. Purchase price, as indicated by purchase invoice.
2. Freight and drayage paid for transportation from point of purchase to factory of purchaser.
3. Cost of unpacking and setting up machine.
4. Cost of installation, including the cost of constructing metal or concrete base.
5. Cost of testing to determine the usefulness of machine.
6. Cost of any changes or alterations necessary before the machine is in proper condition to operate.

After the asset is put into service, only those expenditures which add to the length of its life or increase its efficiency can be added to its value. A machine with an estimated life of four years may be overhauled, worn pieces replaced, other parts adjusted, etc., with the result that its life may be increased to five years. The cost of the overhauling to the extent of the value added through the increased life of the machine may be added to its original cost and be debited to the asset account.

Expenditures, such as those discussed in the two preceding paragraphs, which are added to the value of a fixed asset, are said to be *charges to capital,* since they represent additions to capital.

As an asset continues in use, certain expenditures will be necessary to maintain it in efficient operating condition. The building will require repairs and paint, and taxes and insurance premiums must be paid. The machine will require repairs from time to time, as well as certain supplies necessary for its operation, such as oil, waste, etc.; taxes and insurance premiums must also be paid. Expenditures of this type, representing as they do part of the necessary cost of using the asset for the current period, are expenses and should be charged as part of the current operating expense of the business. Such expenditures are said to be *charges to revenue* since they are deducted from the revenue of the period.

Unless considerable care is used, *capital* expenditures and *revenue* expenditures may be confused. Thus, an expenditure which, if its effects were carefully analyzed, would be found to be a necessity for the maintenance of the asset, might easily be considered an addition to the asset. On the other hand, a real addition to capital might be mistaken for an operating expense.

This distinction between *capital* and *revenue* is an important one, since the showing of the current profits for each period and the showing of the proprietorship from time to time depend on the correctness with which such distinction is made. Thus if certain expenditures made in connection with the maintenance of a fixed asset, and properly chargeable to revenue, are charged to capital or "capitalized," not only will the assets, and consequently the proprietorship, be overstated, but the expenses for the period will be understated and the net profit overstated by that amount.

In Chapter XLII it has been explained that one of the important fixed assets of a manufacturing business is the machinery used in the manufacturing operations. For this reason, the construction of a fixed asset account and the corresponding reserve for depreciation will be illustrated by means of the Machinery account.

The purpose of the Machinery account is to show the cost of the machinery used in the manufacturing operations of the business. It should not include the cost of small tools and miscellaneous equipment. The cost of these should be recorded in a separate account or accounts.

The debits and credits to the Machinery account are as follows:

Machinery

DEBIT:	CREDIT:
With the *cost* of machinery purchased or produced. With the cost of additions or alterations which increase the life or efficiency of the machinery.	With the *cost* of machinery and equipment sold, discarded or otherwise disposed of. The difference between the cost of the machinery and the price realized for it is debited to the Reserve for Depreciation account.

The balance of this account shows the cost of the machinery in operation. It is shown as a fixed asset on the Balance Sheet.

The purpose of the Reserve for Depreciation of Machinery account is to show the estimated accrued depreciation on machinery. The debits and credits to the Reserve account are as follows:

Reserve for Depreciation of Machinery

DEBIT:	CREDIT:
With the cost of any unit of machinery destroyed or discarded. With the difference between the salvage value and cost of machinery discarded. With the difference between the cost of machinery and the amount realized from its sale.	At the close of each fiscal period, with the estimated depreciation on machinery for the period. The corresponding debit will be made to the appropriate expense account.

The balance of the Reserve for Depreciation account shows the net amount of the reserve created to provide for the decrease in value of the machinery due to depreciation. It is shown on the Balance Sheet as a deduction from the Machinery account.

Intangible Assets

Intangible assets have been discussed and illustrated in Chapter XLII. It has been explained that "goodwill" is the intangible asset of most frequent occurrence. Consequently the Goodwill account may be taken to illustrate the construction of accounts with intangible assets.

The purpose of the Goodwill account is to show the value of the goodwill of a business which has been purchased by the present owners of the business. Goodwill should be set up in the records only when it has been purchased. It arises most frequently when a partnership is purchased by a corporation. To illustrate the procedure in such a case, it may be assumed that the X Corporation purchases the business of Brown & Smith for $125,000.00. The Balance Sheet of Brown & Smith, showing totals only, is as follows:

BROWN & SMITH
Balance Sheet

Assets	$175,000.00
Liabilities	75,000.00
Net Worth	$100,000.00

Since the X Corporation is paying Brown & Smith $25,000.00 more than the net worth of their business, this difference must represent the estimate of the goodwill of the business. To make the transfer of the assets and liabilities from the partnership to the corporation, it is necessary to set up the goodwill on the books of each. If it is assumed that Brown & Smith are equal partners, the goodwill will be set up on their records by the following entry:

		Goodwill	25000		
		Brown, Capital			12500
		Smith, Capital			12500
		To record the value of the goodwill sold to the X Corporation.			

To close the books of the partnership the following entries will be made:

		X Corporation	200000	
		General Assets		175000
		Goodwill		25000
		To transfer the assets of the partnership to the X Corporation.		
		Liabilities	75000	
		X Corporation		75000
		To show assumption of the liabilities of the partnership by the X Corporation.		
		Cash	125000	
		X Corporation		125000
		To record payment of purchase price by the X Corporation.		
		Brown, Capital	62500	
		Smith, Capital	62500	
		Cash		125000
		To show distribution of net assets to the partners.		

On the books of the corporation the assets purchased and the liabilities assumed would be recorded by the following entries:

		General Assets	175000	
		Goodwill	25000	
		Brown & Smith, Vendors		200000
		To record assets purchased from Brown & Smith.		
		Brown & Smith, Vendors	75000	
		Liabilities		75000
		To show assumption of the liabilities of Brown & Smith.		
		Brown & Smith, Vendors	125000	
		Cash		125000
		To record payment to Brown & Smith of the purchase price of their business.		

The debits and credits to the Goodwill account are as follows:

Goodwill

DEBIT:	CREDIT:
With the cost value of the goodwill purchased.	This account is not credited unless the proprietors wish to write it off the books. In this case it is credited at the end of the fiscal period with the amount necessary to write it off during the time decided. The corresponding debit is to the Profit and Loss account.

The balance of this account shows the net value of the goodwill purchased. It is shown on the Balance Sheet as a separate item, immediately following the fixed assets.

There is a difference of opinion among accountants and business men as to whether goodwill should be written off or retained on the books. In most businesses, when goodwill appears on the books, it remains there permanently.

Fixed or Long-Time Liabilities

In addition to the lines of short-term credit which business concerns ordinarily secure from their trade creditors and from the banks, it is often desirable to secure the use of funds for a longer period. Such funds may be secured from additional investment by the owners or by admitting new members into the owning group, as admitting an additional partner who would contribute capital, or in the case of a corporation, by issuing additional capital stock to outsiders. In case these courses do not seem desirable, the money may be secured by long-term borrowing from outsiders. Such borrowing gives rise to long-time or *fixed* liabilities. The two fixed liabilities of most frequent occurrence are mortgages payable and bonds payable. Of recent years another fixed liability has appeared with increasing frequency on the Balance Sheets of corporations in the form of *long-term notes.* The accounts necessary to record the fixed liabilities will be discussed briefly.

Mortgages Payable

The purpose of the Mortgages Payable account is to show the amount owed on notes which are secured by a mortgage.

The debits and credits to the Mortgages Payable account are as follows:

Mortgages Payable

DEBIT:	CREDIT:
With payments made on mortgage notes payable. With the face value of mortgage notes payable canceled for any reason.	With the face value of the notes issued by the business which are secured by a mortgage.

The balance of the Mortgages Payable account shows the face value of notes secured by mortgage which are outstanding against the business.

Bonds Payable

The purpose of the Bonds Payable account is to show the face value of the company's bonds outstanding. Where a company has several issues of bonds outstanding, a separate account for each issue is maintained. On the Balance Sheet of the issuing company the amount of each issue may be shown as a separate item, but more frequently only one item of bonds payable is shown, this amount representing the total of all issues outstanding.

The debits and credits to the Bonds Payable account are as follows:

Bonds Payable

DEBIT:	CREDIT:
With the face value of all bonds redeemed or otherwise retired.	With the face value of bonds sold or otherwise issued.

The balance of the Bonds Payable account shows the face value of bonds outstanding.

Long-Term Notes

Corporations often issue notes for periods which are relatively short as compared with the maturity of the average bond, but which are for a longer period than the ordinary note given to a bank or to a trade creditor. The time of these notes is usually from one to five years from the time of their issue. The purpose of selling such notes is usually to secure fixed capital at a time when the investment market is not considered favorable for an issue of long-term bonds, but at the same time there is the expectation of later issuing bonds to take the place of the notes when interest rates are more favorable to securities of long duration. These notes are very similar to bonds except in the length of time for which they are issued, the similarity being paticularly noticeable in the manner in which both are issued and marketed. They differ from mortgages in that they are not usually secured by mortgages, but, on the contrary, depend for their salability on the earning power and general credit of the company.

The accounts maintained with long-term notes are similar to the accounts maintained with any issue of bonds. The title of the account should be such as to indicate the nature of the issue.

The debits and credits to such an account are as follows:

1926—Five-Year Seven Per Cent Gold Notes

DEBIT:	CREDIT:
With the face value of such notes redeemed or otherwise retired.	With the face value of such notes sold or otherwise issued.

The balance of a Long-Term Note account shows the face value of such notes issued and outstanding. It is shown as a fixed liability on the Balance Sheet.

Accounts Showing Cost of Goods Manufactured

In Chapter XLIII the method of showing the cost of goods manufactured on the Statement of Profit and Loss was explained and illustrated. From the illustration given in that chapter it can be seen that this cost is composed of three items: material, labor and manufacturing expense. To obtain the amount of each of these items of cost, it is necessary to keep one or more accounts with each. It is the purpose of the following discussion to explain the construction and operation of these accounts.

Materials Account

The first expenditure incurred in the manufacturing process is the purchase of the materials which are to be used in the product to be manufactured. It is necessary that a very careful record be kept of materials for two reasons: (a) to prevent waste or improper use, and (b) to know the cost of the materials which enter into the finished product. The method of storing and handling materials will be discussed in a subsequent chapter. It is sufficient for the present to know that when materials are received, they are placed in a storeroom and, when needed in the factory, they are issued in response to a written request which is termed a "requisition." Only the ledger record of materials will be discussed at present.

The purpose of the Materials account is to show the cost of materials on hand. The debits and credits to this account are as follows:

Materials

DEBIT:	CREDIT:
With the cost of materials purchased. With the freight paid on materials purchased. With materials returned from the factory which have been taken from the storeroom but not used.	With the cost of materials issued from the storeroom for use in the factory. The corresponding debit is to Materials in Process. In many cases a record is kept of all materials withdrawn from the storeroon during the month and the total credited to Materials at the end of the month.

The balance of the Materials account shows the cost value of the materials on hand. It is shown on the Balance Sheet as a current asset.

Labor Account

When the raw materials are transferred from the storeroom to the factory, it is for the purpose of having work performed on them so as to convert them into the product which the business sells. For instance, lumber may be transferred to the factory, and there converted into furniture. In the performance of this work labor is necessary, and the cost of this labor must be added to the cost of the materials in determining the cost of the goods manufactured. The method of keeping a detailed record of labor costs will be explained in a subsequent chapter. It is sufficient for the present to know that customarily a "time ticket" is prepared for each workman showing the time he works on each job or the hours he works each day. These tickets are sent to the accounting department and the amount due to the workman determined from them. Only the ledger account which shows the total cost of labor used will be discussed at present.

The purpose of the Labor account is to show the cost of the labor used in the manufacturing operations. The debits and credits to this account are as follows:

Labor

DEBIT:	CREDIT:
With the cost of the services of factory employees, as shown by the time tickets.	At the end of the cost period the Labor account is credited and the Manufacturing account is debited for the labor cost of the month as shown by the debit side of the Labor account.

At the end of the month the Labor account will balance. At any time during the period it will show the labor charges to date for the current period.

Manufacturing Expense

In the operation of the factory various expenses are incurred These expenses have been discussed and illustrated in Chapter XLIII. Usually there are several accounts kept with these expenses. If the factory is divided into departments, there will be separate expense accounts for each department. The principles governing the construction and operation of all these expense accounts are the same, and the following discussion will apply to any Manufacturing Expense account.

The purpose of the Manufacturing Expense account is to show the amount of the particular kind of expense with which the account is kept. The debits and credits to such an account are as follows:

Manufacturing Expense

(Separate accounts for each class of expense)

DEBIT:	CREDIT:
With the total of the class of expenses with which the account is kept.	At the end of each cost period each manufacturing expense account is closed into the Manufacturing account by a debit to the latter, and a credit to the former.

At the end of the cost period each Manufacturing Expense account will balance. At any time during the period it will show the expenses which have been incurred to date during the period.

Materials in Process

In the discussion of the Materials account it has been explained that when materials are transferred to the factory they are debited to the Materials in Process account. At the end of the cost period the balance of this account, like the Labor and the Manufacturing Expense, is transferred to the Manufacturing account.

The debits and credits to the Materials in Process account are as follows:

Materials in Process

DEBIT:	CREDIT:
With the cost of materials transferred from the storeroom to the factory.	At the end of the cost period, the balance of this account is transferred to the Manufacturing account by a debit to Manufacturing account and a credit to Materials in Process.

At the end of the cost period the Materials in Process account will balance. At any time during the cost period it will show the materials which have been put into process during the period.

The Manufacturing Account

The Manufacturing account provides a summary of the factory operations for the month. The debits and credits to this account are given at the top of the following page.

Manufacturing Account

DEBIT:	CREDIT:
With the inventory of goods in process at beginning of the cost period. With the materials, labor and expense put in operation during the cost period as shown by the Materials in Process, Labor and Manufacturing Expense accounts.	With the cost of goods completed during the cost period and transferred from the factory to the finished goods storeroom. The corresponding debit is to Finished Goods account.

The balance of the Manufacturing account shows the inventory of goods in process. It is shown as a current asset on the Balance Sheet.

Finished Goods Account

The purpose of the Finished Goods account is to show the cost value of the salable product on hand. The debits and credits to this account are as follows:

Finished Goods

DEBIT:	CREDIT:
With the cost of goods manufactured and transferred to the finished goods storeroom.	With the cost of all goods sold. At the same time Cost of Sales account is debited.

The balance of this account shows the inventory of finished goods. It is shown as a current asset on the Balance Sheet.

Cost of Sales Account

The purpose of the Cost of Sales account is to show the cost of goods sold during the period. This account performs the same function as the Purchases account in a mercantile business. The debits and credits to this account are as follows:

Cost of Sales

DEBIT:	CREDIT:
With the cost of goods sold. The corresponding credit is to the Finished Goods account.	At the end of the period the balance of this account is debited to Sales or Trading, depending on the method of closing the books.

When the closing entries are made at the end of the period, the Cost of Sales account will balance. During the period it shows the cost of the goods sold to date.

Illustration of Manufacturing Accounts

The operation of the manufacturing accounts discussed in this chapter may be illustrated by the following skeleton journal entries:

1. When materials are purchased:
   Materials.
      Accounts Payable.
2. When materials are transferred from the storeroom to the factory:
   Materials in Process.
      Materials.
3. When the wages due factory employees as shown by the time tickets are recorded:
   Labor.
      Accounts Payable.
4. When manufacturing expenses are incurred:
   Manufacturing Expenses.
      Accounts Payable.
5. When the ledger accounts are closed, usually monthly:
   Manufacturing Account.
      Materials in Process.
      Labor.
      Manufacturing Expense.
6. When finished goods are transferred from the factory to the finished-goods storeroom:
   Finished Goods.
      Manufacturing Account.
7. When finished goods are sold, two entries are made:
   a. Cost of Sales.
         Finished Goods.
   b. Accounts Receivable.
         Sales.

The Cost of Sales account and the Sales Account are closed at the end of the fiscal period in the same manner as the Purchases account and the Sales account of a mercantile firm.

In making the foregoing entries it has been assumed that the charges for labor and manufacturing expenses are recorded as accounts payable before they are paid. In most businesses this assumption holds true. since the one who records the charges does not record the payments. The entries for the charges and the payments are made at different times and in different records.

Trading Account

At the end of the fiscal period, certain accounts show the cost of goods purchased or produced during the period and certain other accounts show the returns from sales. To determine the gross profit for the period it is necessary to summarize these accounts and offset the net cost of goods sold against the net returns from sales. This may be done in two ways:

1. All the accounts affecting the cost of purchases or the cost of goods manufactured are closed into the Purchases or the Cost of Sales account. The beginning and ending inventories are also closed into this account. It then shows the cost of goods sold. All the accounts affecting the returns from sales are closed into the Sales account. The balance of the Purchases account, or the Cost of Sales account, is closed into the Sales account. The balance of the Sales account will then show the gross profit or loss on sales, and this will be closed into the Profit and Loss account.

2. A new account, termed Trading account, is set up. All accounts affecting the cost of goods sold and all accounts affecting the returns from sales are transferred to the Trading account. The balance of this account shows the gross profit or loss on sales and is transferred to the Profit and Loss account.

The debits and credits to the Trading account are as follows:

Trading

DEBIT:	CREDIT:
With the balance of the Purchases account in a mercantile business or the balance of the Cost of Sales account in a manufacturing business.	With the balance of the Sales account.
With the balances of the Sales Returns and Sales Allowances accounts.	With the balances of the Purchases Returns and Purchases Allowances accounts.
With the inventory at the beginning of the period.	With the inventory at the end of the period.

There may, of course, be several accounts kept with each of the items with which the Trading account is debited and credited. In this case all the separate accounts are closed into the Trading account.

The balance of the Trading account shows the gross profit or loss on sales and is transferred to the Profit and Loss account.

In a business which has several accounts with Purchases, Sales and Inventory, the use of the Trading account is very desirable.

QUESTIONS FOR CLASS DISCUSSION

1

What entries are made in the Fixed Asset account for the automobile trucks of a department store?

2

What changes would appear in the valuation of the account between January 1, 1917, when it was opened, and January, 1921? How would the differences be indicated?

3

Compare the problem of determining the proper depreciation rate for a fixed asset, such as a standardized drill, the life of which can be determined from a similar asset in another factory, with the problem of determining the rate for a new asset, as a newly-patented electric typewriter, which can not be compared with similar machines because of its recent appearance in the market.

4

Which of the following expenditures on a machine are charges to revenue and which are charges to capital:

a. Erecting a platform on which to set the machine.

b. Engaging an expert engineer to examine and test the efficiency of the machine.

c. Buying additional equipment for plant to carry out manufacturing process more smoothly.

d. Buying insurance for the machine.

e. Buying a patent device which increases the serviceability of the machine.

f. Certain kind of lubricating oil used to clean the machine.

g. Replacing some parts of the machine which were damaged by an accident in the factory.

5

Trace the effect of each of these charges on the proprietorship and net profit of the corporation.

6

"Goodwill should be set up in the records only when it has been purchased." Why is this the rule?

7

Broad & Wall are owners of a partnership whose Balance Sheet shows assets to be $795,000.00 and liabilities $245,000.00 with net worth amounting to $550,000.00. The Hamilton Production Company purchases the business of Broad & Wall for $750,000.00. Show the entries that are made in the books of the partnership.

8

Make the entries necessary to record the assets and liabilities of Broad & Wall on the books of the Hamilton Production Company.

9

The Hamilton Production Company have paid for the goodwill of Broad & Wall. In reorganizing the business, the Hamilton Production Company decides that it does not want to consider among its assets this goodwill. Draw up an account for the asset "Goodwill." Show the steps that are necessary to write off goodwill from the books.

10

Compare the opportunity of a partnership and corporation for borrowing funds. What relation has this problem to accounting?

11

Under what considerations should a corporation issue bonds? Under what should it issue notes?

12

The account with materials is to be kept carefully in order to prevent waste of materials and to determine the cost of the materials which enter into the finished product. What information is there in the account that will secure such results?

13

The following expenses have been incurred during the month:

Wages of Machine Tenders	$ 300.00
Wages of Machine Operators	2,500.00
Power	575.00
Salaries of Foremen	1,500.00
Machine Accessories	375.00

State the accounts to be charged for these expenses.

14

What elements of expense compose the Manufacturing account? What relation does it bear to the Finished Goods account?

LABORATORY MATERIAL

Exercise No. 120

On January 1, 1920, the Brown Manufacturing Company, a newly organized corporation, has outstanding $200,000.00 common stock which has been sold for cash at par. The cash received from its sale is on deposit in the First National Bank. During the year 1920 the company performs the following transactions:

Jan. 1. Purchases for cash five lots for $500.00 each.

10. Pays $75.00 for commission to broker who purchased the lots for the company.

15. Pays $2.50 for the recording of the deed.

Feb. 1. Pays $200.00 for the construction of a sidewalk on the street bordering the lots.

Sept. 1. Pays for the construction of a building at a cost of $60,000.00. The building occupies three of the lots. It is estimated that the building will last twenty-five years and have a scrap value of $10,000.00; hence, 1/25 of $50,000.00 or $2,000.00 will be set up for depreciation each year.

Pays for machinery to be used in factory, $20,000.00. It is estimated that the machinery will last ten years and have a scrap value of $2,000.00; hence, 1/10 of $18,000.00 or $1,800.00 will be set up as depreciation each year.

Pays insurance premium on building for two years, $100.00.

During the four months beginning September 1st the company performs the following cash transactions:

Sells One of the Vacant Lots .	$ 800.00
Pays for Janitor Service . .	400.00
Purchases Raw Material . .	30,000.00
Pays for Factory Wages . .	10,000.00
Pays for Factory Supplies and Overhead Expenses . . .	10,000.00
Pays for Administrative and Selling Expenses	8,000.00
Sells Merchandise	75,000.00

It has no inventory on hand of raw materials nor finished goods, December 31st.

Dec. 31. Closes books on this date showing results of manufacturing operations for the past four months. The buildings of the company were not complete until September 1; hence, it has been carrying on manufacturing operations only four months. It is decided to close the books on December 31st, that future fiscal years will correspond with the calendar year.

Instructions: 1. Make (in journal form) entries (a) to open the books of the Brown Manufacturing Company as of January 1, 1920; (b) to record the transactions for the year, and (c) for the depreciation and insurance.

2. Post to the ledger accounts, allowing twelve lines for the Cash account and six lines for each of the other accounts.

3. Prepare a Trial Balance as of December 31, 1920.

4. Prepare a Balance Sheet and Statement of Profit and Loss as of December 31, 1920.

5. Make the journal entries to close the books and post same.

Exercise No. 121

On January 1, 1919, the Trial Balance of the King Manufacturing Company is as follows:

Cash	$ 10,000.00	
Accounts Receivable . . .	20,000.00	
Inventory of Finished Goods	40,000.00	
Machinery and Equipment .	60,000.00	
Buildings	70,000.00	
Land	30,000.00	
Accounts Payable		$ 30,000.00
Capital Stock		150,000.00
Surplus		50,000.00

The past two years have been very profitable and it is decided to obtain additional capital which will make possible an enlargement of the business. In pursuance of this policy, $30,000.00 of six per cent twenty-year bonds are sold at par on February 1st, and $10,000.00 of seven per cent two-year notes are sold at par on March 15th. The interest on each is payable annually.

On December 31st the totals shown by the books of original entry are as follows:

Sales on Account, $200,000.00; Raw Materials Purchases, $80,000.00; Factory Wages Paid, $20,000.00; Factory Expenses Paid,

$18,000.00; General Expenses Paid, $12,000.00; Collected on Accounts Receivable, $170,000.00; Paid on Accounts Payable, $75,000.00.

Supplementary data is obtained as follows:

(a) The machinery and equipment is estimated to have a life of eight years from January 1, 1919, and to have a scrap value of $5,000.00. The depreciation is to be distributed equally over the years during which the machinery and equipment are to be used.

(b) The buildings are estimated to have a life of twenty years from January 1, 1919, and to have a scrap value of $8,000.00. The depreciation is to be distributed equally over the years during which the buildings are to be used.

(c) The estimated loss on bad debts is one per cent of accounts receivable outstanding. The books are closed on December 31, 1920.

Instructions: 1. Make journal entries (a) to open the records of the company on January 1; (b) to record the transactions for the year, and (c) for the adjustments at the close of the year.

2. Post journal entries, allowing six lines for each ledger account.

3. Prepare a Trial Balance.

Exercise No. 122

The Trial Balance of the Hydrex Corporation on January 1, 1920, is as follows:

Cash	$10,000.00	
Accounts Receivable	30,000.00	
Raw Materials	5,000.00	
Goods in Process	8,000.00	
Finished Goods	4,000.00	
Machinery and Equipment	20,000.00	
Buildings	9,000.00	
Land	6,000.00	
Accounts Payable		$22,000.00
Surplus		10,000.00
Capital Stock		60,000.00
	$92,000.00	$92,000.00

(Concluded on next page)

The operations of the corporation during the month of January are as follows:

Raw Materials Purchased on Account . . .	$10,000.00
Raw Materials Transferred from Storeroom to Factory	9,000.00
Labor Used in Factory as Shown by Time Cards	4,000.00
Manufacturing Supplies as Shown by Invoices	2,000.00
Cost of Repairs on Machinery and Equipment as Shown by Cost Sheets	1,000.00
Other Manufacturing Expenses Such as Light, Power, etc., as Shown by Statements Received	500.00
Cost of Finished Goods Transferred from Factory to Finished Goods Storeroom .	18,000.00
Selling and Administrative Expenses as Recorded from Invoice and Payrolls .	3,000.00
Sales on Account	28,000.00
Cost of Goods Sold	20,000.00

CASH TRANSACTIONS:

Accounts Receivable Collected	35,000.00
Accounts Payable Paid	26,000.00

Supplementary Data: Depreciation on machinery and equipment is allowed at the rate of twenty per cent a year and on the building at the rate of five per cent a year.

Estimated loss on bad debts is one-tenth of one per cent of accounts receivable outstanding.

Instructions: 1. Open, by means of a compound journal entry, the accounts necessary to show the trial balance at the beginning of the year.

2. Make journal entries necessary to record the transactions for the month.

3. Post entries (allow eight lines for Accounts Payable account and five lines for each of the other accounts), and take a Trial Balance.

4. Make adjusting entries and post.

5. Prepare a Balance Sheet and Statement of Profit and Loss.

6. Make the closing entries and post.

CHAPTER XLV

RECORDS OF ORIGINAL ENTRY

Relation of Records of Original Entry to Operations of the Business

The records of original entry used by different businesses vary more widely than any other part of the accounting process. The reason for this variation is easily seen when the purpose of such records is considered. This purpose is twofold:

> 1. To provide a summary of transactions of like kind, that is, to summarize the cash transactions, the sales transactions, the purchase transactions, etc.
> 2. To provide an analysis of these transactions and serve as a posting medium by means of which this analysis is transferred to the ledger accounts. For instance, the record of cash received may show the sources from which the cash came; the sales records may show the sales analyzed by territories, salesmen, departments or commodities. Other records may afford similar anaylses. Regardless of the anaylsis made, all such records serve as posting mediums.

The task involved in making a summary of the transactions of each kind or class depends on the number of the transactions, and this in turn, depends on the volume of the operations of the business. It is obvious that a method employed to summarize the sales transactions in a business where only one hundred sales are made each month, might be entirely impracticable in a business making ten thousand sales monthly. In the former case, each sale may be copied in a bound record, and these entries totaled at the end of the month to determine the credit to the Sales account. In the latter case, some method will be devised to eliminate the copying of each sale in a record, and the total will usually be obtained by means of a tabulating machine.

The analysis which is required will depend on the nature of the operations of the business and the organization of its personnel. To take the sales transactions of the business for the purpose of another illustration, a small retail business, selling but one commodity for cash, will probably need no analysis of its sales. The business selling ten different commodities in twenty different states will probably want its sales analyzed by commodities and by states. If fifty salesmen are employed, it may be desirable to have the sales analyzed by salesmen. If the sales are made on different terms, an analysis by terms of sales may be required. The analysis desired will affect the form to be employed in making the original record. For instance, time studies have shown that if more than two analyses are to be made, it is more economical to employ machines to make the analysis. If not more than two analyses are to be made, it is better to make the analsysis by hand.

All of these considerations affect the form of the record of original entry used. Regardless of the form of the record employed, however, all such records are in essence journals, since they provide an analysis of transactions by which equal debits and equal credits are posted to the accounts. The student will avoid many difficulties if he will remember this essential feature of records of original entry, and regardless of the form, study the records and determine the method by which this equality is maintained.

It is assumed that the student is now familiar with simple forms of the general journal, sales journal, purchases journal and cash journals. It is the purpose of the present chapter to explain some modifications of these forms which will adapt them for use in cases where the simple forms of records are not satisfactory.

The Columnar General Journal

It is a well-established rule of modern accounting procedure that no ledger entry shall be made unless the entry be posted from a record performing the function of a journal. It is therefore necessary that all entries which can not be recorded in the *special* journals be recorded in the *general* journal. The simplest form of this journal, as illustrated in previous chapters, is provided with two columns, one of which contains the debits and the other the credits to be posted to the ledger accounts. When this form is used, it is necessary to post each debit and each credit separately. In many cases this method is satisfactory since transactions of the same kind do not appear frequently in the general journal. In some cases, however, there are certain journal transactions which occur frequently, but not with sufficient frequency to make it desirable to put them in a special journal. In such cases, additional columns may be added to the general journal and these transactions recorded in the special columns. Such a form of the journal may be as in Illustration No. 63.

April 2, 192

Accounts Payable Debit	Accounts Receivable Debit	General Debit	Folio	Entry and Explanations	Folio	General Credit	Accounts Receivable Credit	Accounts Payable Credit
		500 00		Delivery Equipment				
				Notes Payable		500 00		
				Gave 30-day note dated today in part payment of auto truck.				
				5				
	12 50			J. A. Smith				
				Freight Out		12 50		
				Freight adjustment.				
				8				
650 25				Johnson Bros.				
				Notes Payable		650 25		
				Accepted 30-day draft in full of account.				
				11				
		15 20		Purchases				
				Smith & Co.				15 20
				To correct error in invoice of 3/28.				
				15				
		110 16		Notes Receivable				
				C. R. Johnson			110 16	
				Accepted our 30-day draft in full of account.				

Illustration No. 63—Columnar General Journal

In posting, the totals of the special columns are posted to the accounts stated in the columnar headings. The items entered in the two "General" columns are posted individually.

In some businesses the use of the columnar journal is very desirable. In such cases it may contain a number of special columns, but in designing such a record, care must be exercised to prevent it from becoming too large and unwieldy. If a great number of columns are required, it is usually better to record some of the transactions which occur most frequently in a separate journal. Although the columnar general journal is not used as frequently as *formerly*, it is of sufficient importance that the student should be familiar with its form and use.

Journal Vouchers

The entries recorded in the journal are not so numerous as those recorded in the other records, but, because of their nature, they are usually very important. This should be realized readily if it is remembered that all unusual and infrequent entries, as well as the adjusting and closing entries, are made in the journal. Because such entries are both unusual and important, it is necessary that a very complete explanation be made for each of them. To avoid these lengthy explanations in the journal, they may be prepared on a voucher which is known as a "journal voucher." In the journal the only explanation necessary is a reference to the number of the journal voucher which gives the necessary explanation. If there be supporting documents or memoranda for the entry, they may be attached to the journal voucher. These vouchers are filed numerically. The form of a journal voucher which will serve as supporting evidence for the journal entries is shown in Illustration No. 64.

THE BROWN COMPANY
Accounting Department

New York, N. Y., *April 5,* 192__

Journal Folio__________ No. 72

Debit *J. A. Smith*	*12*	*50*
Credit *Freight Out*	*12*	*50*
Remarks—*Prepaid freight charged to Freight Out instead of to J. A. Smith, the terms of sale being f. o. b. our freight station.*		

Approved for Entry
W. O. Crosswhite, General Auditor

Correct
P. M. Davis, Bookkeeper

Illustration No. 64—Journal Voucher for Second Entry in Illustration No. 63

In some cases the journal voucher is used as a posting medium. In such cases it is filed in a binder and takes the place of the journal. In a large business where it is necessary to transfer information from one department to another for the purpose of entry, the journal voucher may be used to advantage as a posting medium. For instance, a branch may perform certain transactions which affect the records kept at the general office of the company. These transactions may be recorded on journal vouchers at the branch and forwarded to the general office, where they may be placed in a binder and used as a posting medium.

In a large accounting department where there are separate sections, such as the Accounts Payable Section, Accounts Receivable Section, Payroll Section, etc., it is necessary for each department to transfer a summary of its operations to the General Accountant in charge of the control ledger. This summary is usually made on a journal voucher. This voucher is made in duplicate. One copy is retained by the section which originates it and the other is sent to the General Accountant who files it in a binder and uses it as a posting medium to the control ledger. The vouchers are numbered consecutively and are filed according to number. If it is necessary to make any entry not provided for by the standard series of journal vouchers, this will be made on a special voucher and called to the particular attention of the General Auditor. By this means an effective control is had over all entries going into the control ledgers.

Journal Voucher

From____________________ Voucher No.________

To____________________ Folio No.________

Nature of Entry________________ Date________192__

	Account and Description	Detail	General Ledger			Customer's Ledger		
			Debit	Acct. No.	Credit	Debit	Credit	

ENTERED________________ APPROVED________________
Bookkeeper General Auditor

Illustration No. 65—Journal Voucher to Serve as a Posting Medium

The Voucher System of Recording Purchases

In the operation of either a mercantile or manufacturing business it is necessary to purchase the following:

> 1. Goods or Materials. In a mercantile business goods are purchased and resold without modification. In a manufacturing business materials are purchased and used in the production of the commodity or service which the business sells.
>
> 2. Assets. Both mercantile and manufacturing businesses must purchase such assets as furniture and fixtures, land, buildings, machinery and equipment with which to carry on their operations.
>
> 3. Services. All businesses must purchase services such as labor, heat, light, power, etc., with which to operate. Such services are ordinarily termed expenses. They may be used in the production of the commodity or service which the business sells, or they may be used in connection with the sales after it is produced or purchased.

The volume of operations performed by even the small business is such that the combined expenditures for these purposes is of sufficient amount to be of importance. In the large business such expenditures must of necessity amount to enormous sums. In both the small and large business it is necessary that some effective control be exercised over these expenditures. In a small business this is usually accomplished by having all purchases made under the direct supervision of the chief executive head of the business. In a large business such supervision is not practicable. It is necessary to delegate the responsibility for the incurring of such expenditures to subordinates, and these are at best only supervised indirectly by the executive head of the business. It is necessary, therefore, to devise some means by which a proper control of expenditures may be effected, since the personal control of the chief executive is no longer possible.

One method of bringing about such control is to require for each expenditure a written authorization. This authorization is usually in the form of a "voucher" which is approved by the proper authorities. The voucher is prepared from the bill, invoice or other data which serves as evidence of the expenditure to be made. The front of the voucher provides a place for copying the invoice or for making an explanation of the expenditure in the absence of an invoice and for the signatures of those approving the expenditure. The back of the voucher provides a space for indicating the accounts which are to be charged for the expenditure. Sometimes other data is shown on the back of the voucher such as the date when issued, the number, the name of the payee, etc. The purpose of this data is to make possible more ready reference to the voucher after it is filed. The front and back of the voucher are shown in Illustrations Nos. 66 and 67.

Voucher

SUPERIOR ICE CREAM CO.

No. 1 Date of Issue July 10, 19__

Date due July 10, 19__ Less____%

In Account with J. A. Parker

Address City, for the following:

Invoice Date	DESCRIPTION	Amount
	Cash payment on account of purchase of his interest in partnership of Parker & Thompson	10000

George Rooney, President ________ Superintendent *H D. Thompson*, Secretary

Signatures indicate the following: PRESIDENT, that the company has received full benefit and payment may be made when due; SUPERINTENDENT, that the prices, terms and amount are correct; BOOKKEEPER, that the voucher is a true copy of the original papers and the facts are stated correctly.

Illustration No. 66—Front of Voucher

Where the voucher system is in use, every invoice or bill which is received must be "vouchered." This necessitates that it be approved as to:

1. Quantities, prices, grades, sizes, quality, etc., by the purchasing agent.
2. Actual receipt, by the receiving clerk.
3. Mathematical accuracy of extensions, by checking clerk in accounting department.
4. Terms of payment, by purchasing agent.
5. Distribution (accounts to be charged), by bookkeeper or auditor.

Distribution

Accounts, Dr.		
Raw Materials		
Merchandise Purchases		
Ice		
Direct Labor		
Indirect Labor		
Selling Expenses		
Delivery Expenses		
Advertising		
Admr. Expenses		
Sundry Accounts, Dr.		
Parker & Thompson	*10000*	*00*
Total (V. P. Cr.)	*10000*	*00*

Recapitulation

Voucher No. *1*

Issued *July 10, 19—*

To *J. A. PARKER*

Address, *City*

Amount............*$10000.00*

Recorded in V. P. Register on Page *1*

Terms *Cash*

Due 19

Paid *July 10, 19*

Check No. *1* for *$10000.00*

Discount..........$

CERTIFICATION

This Voucher has been carefully audited and is correct in every respect.

W. O. CROSSWHITE,
Auditor

Illustration No. 67—Back of Voucher

Usually these approvals are indicated on the invoice before the voucher is prepared. The voucher shows the distribution or the accounts to be charged. The bookkeeper or auditor usually indicates the distribution on the invoice before it is copied on the voucher so as to prevent mistakes. If the accounts in the ledger are numbered, the bookkeeper will indicate the charges by means of these numbers. After the voucher is prepared, the invoice is fastened on the inside and the voucher is folded, so that the distribution, as shown on the back, will be visible. It is then entered in the appropriate record as explained in the following paragraphs and filed in the "Unpaid Vouchers" file under the date when it is to be paid. When the due date arrives, the voucher is taken from the file and a check issued in payment. The check is recorded in the cash disbursements record. After the voucher is paid, it is filed in the "Vouchers Paid" file. Vouchers authorizing the payment of cash at the time the voucher is issued are filed in the "Paid Vouchers" after the voucher is recorded in the voucher register and cash disbursements journal.

Occasionally business firms mail the voucher with the check to the creditor with the request that he sign the voucher acknowledging its payment and return it to the sender. This practice is not employed to any considerable extent at present. It has been unsatisfactory for two reasons: (a) creditors forget to return the receipted voucher, and hence the substantiating vouchers for the entries in the records are missing; (b) the distribution and other details on the voucher give information to outsiders which it may be undesirable for them to have.

The Voucher Register

It has been explained in the preceding paragraphs, that when a voucher system of authorizing payments is used, a voucher is prepared for each expenditure made, whether the expenditure be for goods, materials, fixed assets or services. In fact, a check is never issued, except in payment of a voucher which has been properly authorized. When this method of controlling expenditures is employed, it is most convenient to record all purchases in one record. This may be done by employing what is known as a *voucher register.* The voucher register contains a record of all vouchers issued. As soon as a voucher is prepared and approved, it is entered in the voucher register. When it is paid, the date of payment is entered in the appropriate column in the register. The total of the unpaid vouchers as shown by the voucher register must at all times agree with the total of the vouchers in the unpaid voucher file.

The form of the voucher register may vary widely depending largely on the size of the business and the number of accounts maintained with purchases and expenses. It is usually ruled to provide columns, showing date of entry, voucher number, name of creditor, date paid, number of check issued in payment, a Vouchers Payable credit column and as many debit columns as are necessary to show the distribution and classification of all bills and invoices. To the extreme right, a space should be provided for sundry debits, with columns for the name of the account, the ledger folio, the amount and remarks. Every entry made in this record thus appears as a credit to Vouchers Payable and as a debit to the account or accounts which are charged for the commodities or services represented by the invoice. The voucher register is not posted until the end of the month. At this time all the columns are totaled and the total of each column posted to the account stated at the head of the column. The total of the "Vouchers Payable" column is posted to the *credit* of the Vouchers Payable account, while the totals of all the other columns are posted to the *debit* of their respective accounts. The items in the "Sundry" column are posted individually to the *debit* of the account stated in the "Name of Account" column. The voucher register should be proved before posting. The sum of the totals of all the debit columns to the right of the "Vouchers Payable" column should be the same as the total of the "Vouchers Payable" column. Unless there is agreement, an error has been made either in making the distribution or in obtaining the various totals; this error must be found before posting.

A form for Voucher Register is shown in Illustration No. 68.

Voucher Register

Date	Voucher No.	Name	Address	For	When and How Paid		Vouchers Payable Cr.	Raw Materials Dr.	Mdse. Purchases Dr.
					Date	Ck. No.			

Illustration No. 68—Voucher Register, Left Page

Voucher Register

Ice Dr.	Direct Labor Dr.	Indirect Labor Dr.	Selling Expenses Dr.	Delivery Expenses Dr.	Advertising Dr.	Admr. Expense Dr.	Amount	SUNDRY ACCOUNTS, Dr.	
								Name of Account	L. F.

Illustration No. 68—Voucher Register, Right Page

Relation of the Voucher System to the Accounts Payable Ledger

When the voucher system is employed, the accounts payable ledger is ordinarily *not* used. The vouchers in the unpaid vouchers file serve as a record of the amount owed individual creditors, and since they are filed under the due date, they automatically provide for payments to creditors. The vouchers in the unpaid voucher file must agree at all times with the unpaid vouchers as shown by the register, and the total of these vouchers must agree with the balance of the Vouchers Payable account.

Card Record of Vouchers Payable

In a business where it is necessary to have numerous materials and expense accounts, it is not possible to use a voucher register as is shown in Illustration No. 68, because too many columns are required. In such cases cards are used on which to make the voucher distribution. A separate card is used for each account. All the charges to each account are entered on the card kept with the account. The total of the daily charges to all the debit accounts is entered on a Vouchers Payable card. At the end of the month the total of the entries on each card is posted to the appropriate account. In most large businesses it is necessary to use the separate cards as a means of showing the voucher distribution. These cards are filed in trays in alphabetical order. Frequently posting machines are used in making entries to them.

No particular form is necessary for the cards used for the voucher distribution. A form frequently used is ruled as in Illustration No. 69.

Voucher Distribution

Account No.________________

Account Name________________________________

Date	Number	Amount	Total this Month	Posting Folio

Illustration No. 69—Voucher Distribution

The Cash Records

From the foregoing discussion and illustration it can be seen that entries in the voucher register result in debits to various asset, trading and expense accounts, and a credit to the Vouchers Payable account equal to the total of these debits. The Vouchers Payable account serves the same purpose as the Accounts Payable account, since it shows the total due to creditors. When the individual vouchers are paid, an entry is made in the cash disbursements journal which results in a debit to Vouchers Payable and a credit to Cash.

If the terms of the invoice provide for discount, the amount of the discount is entered in the "Discount" column on the same line with the entry for the voucher. The amount of the check issued in payment for each voucher is entered in the column provided for the bank. The total of the first column is posted to the debit of the Vouchers Payable account; the second column to the credit of the Purchases Discount account; and the total of the bank column to the credit of the Bank account.

The cash disbursements record is not posted until the end of the month, when the totals of the columns are posted to the accounts indicated. The individual items in the cash disbursements record are not posted. Under this procedure the cash disbursements record becomes merely a "check register" which registers each check issued. In form it may be as in Illustration No. 70.

Cash Disbursements

Date	Name of Payee	Check No.	Vouchers Payable Dr.	Purchases Discount Cr.	First Nat'l Bank Cr.	Farmers Trust Co. Cr.

Illustration No. 70—Cash Disbursements Journal

When the voucher register is used, the cash receipts journal and the cash disbursements journal are kept as two separate records. In fact this procedure is usually followed in all businesses of any considerable size, since the record of cash receipts and the record of cash disbursements are made by different parties. For instance, the cashier may prepare the record of cash receipts while the accounts payable section of the accounting department may prepare the record of cash disbursements.

The form of the cash receipts record will depend on the analysis of cash receipts desired. The cash receipts journal in Illustration No. 71 contains a column for the subsidiary ledger, a column for department sales, a column for the general ledger, and columns for two banks. Cash receipts from customers are entered in the first column; department cash sales, in the second column; and cash receipts affecting general ledger accounts, in the third column. When a deposit is made, the amount is entered in the proper bank column.

At the end of the month, the total of the first column is posted to the subsidiary account in the general ledger; the total of the second column to the department sales account as indicated by the name of the column. The total of the third column is not posted because the entries in this column are general ledger items. The totals of the bank columns are posted to the debit of the bank account in the general ledger. These two bank accounts represent the cash receipts.

Cash Receipts

Date	Account Credited	Explanation	L.F.	Accounts Receivable Cr.	Ice Cream Sales Cr.	General Ledger Cr.	First Nat'l Bank Dr.	Farmers Trust Co. Dr.

Illustration No. 71—Cash Receipts Journal

Sometimes a "voucher check" is used in connection with the voucher system. A voucher check is one which shows the items for which the check is issued in payment. When it is endorsed by the payee and passed through the bank, it becomes a receipt for the items shown on the check. The items for which the check is issued may be shown on the face of the check in space provided at the left hand end, or they may be shown on the back of the check. Occasionally a voucher blank of the same size as the check is attached to the check. In this case the voucher blank and the check are folded so that the details are inside and the endorsement can be placed on the back of the voucher blank.

The Sales Record

In a large business, where sales are numerous, it is not practical to make an entry in a sales record for each sale made. Usually a copy of the sales invoice is made and this is used as a basis of the sales record. Sometimes the copy of the sales invoice is filed in a loose-leaf binder, and at the end of the month the total of all the invoices is obtained and posted to the Accounts Receivable and Sales accounts. The charges to the customers' accounts are made from the separate invoices. If an analysis of the sales is desired in order to show the sales of different commodities, this analysis can be made from the copy of the sales invoice. One method of making this analysis is to classify the sales as shown by the invoices by the use of columnar paper. If several classifications are to be made, it is desirable to use tabulating machines to make the anaylsis. The use of such machines will be explained in a subsequent chapter. In any case the copy of the sales invoice serves as the basis:

1. For posting to the individual customers' account.
2. For posting to the general ledger.
3. For making any analysis desired.

Sales Journal

Date	Sold to	Inv. No.	Terms	Accounts Receivable Dr.	Ice Cream Sales Cr.	Mdse. Sales Cr.	Ice Cr.

Illustration No. 72—Sales Journal

Notes Receivable and Notes Payable Journals

If the notes received by a business from its customers are not too numerous, they may be recorded in the general journal and posted individually to the debit of Notes Receivable. If numerous notes are received, it is usually expedient to have a separate "Notes Receivable" column in the journal, the total of which is posted to the debit of Notes Receivable. If the number of notes received is very large, it is expedient to have a separate notes receivable journal in which to record them. This journal will serve as a posting medium, hence it is unnecessary to make any record of such notes other than in the notes receivable journal. The form of such a record is shown in Illustration No. 73.

The foregoing discussion of the method of handling notes receivable applies equally well to the method of handling notes payable. The form of a notes payable journal is shown in Illustration No. 74.

Notes Receivable

Date Rec'd	Our No.	L. F.	FROM WHOM RECEIVED (Personal Acct. Credited)	Face of Paper Notes Rec. Dr.	INTEREST		Accts. Rec. Cr.	General Ledger Cr.	MAKER (Note) DRAWEE (Draft)
					Dr.	Cr.			

Illustration No. 73—Left Page of Notes Receivable Journal

Notes Receivable

Date of Paper		Time to Run	Rate of Int.	WHEN DUE													Where Payable	Remarks
Year	Month & Day			Year	Jan. (1)	Feb. (2)	Mch. (3)	Apr. (4)	May (5)	June (6)	July (7)	Aug. (8)	Sep. (9)	Oct. (10)	Nov. (11)	Dec. (12)		

Illustration No. 73—Right Page of Notes Receivable Journal

Notes Payable

Date	Our No.	L. F.	IN WHOSE FAVOR (Personal Acct Debited)	Face of Paper Notes Pay. Cr.	INTEREST		Vouchers Payable Dr.	General Ledger Dr.	MAKER (Note) DRAWEE (Draft)
					Dr.	Cr.			

Illustration No. 74—Left Page of Notes Payable Journal

Notes Payable

Date of Paper		Time to Run	Rate of Int.	WHEN DUE													Where Payable	Remarks
Year	Month & Day			Year	Jan. (1)	Feb. (2)	Mch. (3)	Apr. (4)	May (5)	June (6)	July (7)	Aug. (8)	Sep. (9)	Oct. (10)	Nov. (11)	Dec (12)		

Illustration No. 74—Right Page of Notes Payable Journal

QUESTIONS FOR CLASS DISCUSSION

1

The Eastern Metal Work Corporation has on an average of 13,500,000 sales a year distributed among twenty-five commodities and sold practically in all the manufacturing districts of the United States. The Metals Production Company has about 500,000 sales a year distributed among five commodities sold almost entirely to one large construction company. It is recommended that the Eastern Metal Work Corporation adopt the same method of recording its sales transactions as the latter company uses. Would you approve of this suggestion? Why or why not?

2

Compare the analysis of the sales transactions that would be necessary for the Eastern Metal Corporation and of the Metals Production Company.

3

On the basis of the above comparison, in what way would the records of original entry of these two companies be similar? In what way would they differ?

4

As has been previously stated, the Metals Production Company sells practically all of its five commodities to one construction company. It does, however, engage in miscellaneous trade with certain jobbers. In examining the company's accounting system, it is found that it makes use of the general journal only for recording the sales to jobbers. Do you approve of this method? If not, what form would you suggest?

5

Some one objects to the use of journal vouchers because they require keeping two sets of original information—the voucher and the general journal. What arguments can you give in opposition to this objection?

6

"In both the small and the large business, it is necessary that some effective control be exercised over the expenditures for purchases of materials, assets and services." Give reasons why this control is necessary.

7

Compare the methods of control over expenditures in a large and in a small business.

8

Explain the relation of the voucher file to the voucher register.

9

Describe the method of posting from the voucher register to the various accounts.

10

In examining the voucher register of the Ferro Construction Company, it is found that the total of the debit columns is larger than the total of the "Vouchers Payable" column. Can you give any reason for this difference in amounts?

11

Explain the relation of the voucher register to the cash records. From the point of view of reducing accounting entries, what advantage is there in using vouchers?

12

From what you know of business organization, how do you account for the separation of the cash receipts journal and cash disbursements journal, and for their control by two different officials?

13

Compare the methods you would use for entries with reference to sales in a business of 1,000 sales and a business of 50,000 sales.

LABORATORY MATERIAL

Exercise No. 123

Journal vouchers were issued by the proper officials of Jones and Company during the month of January as follows:

Jan. 3. An item of $25.00 for selling expenses was charged in error to the Advertising account.

10. Allowed Smith Brothers a credit for $25.00 for merchandise which was not in accordance with sample.

15. The Central Commission Company has allowed us credit of $12.50 for freight on merchandise which we purchased from them. The freight being paid at the time the merchandise was delivered and charged to the Freight In account.

20. Accepted from W. R. Johnson merchandise returned for credit, value $18.75.

25. Purchased a new delivery truck for $1,200.00. Gave in payment a used delivery truck, cost price $800.00, depreciation $50.00, and our note due in 30 days for $450.00.

31. Credit R. A. Jones and C. P. Jones, the partners, each with his salary for the month, $150.00.

Transferred $150.00 of the delivery expense to the Purchases Expense account, because our delivery equipment is used for hauling merchandise from the freight depot to the warehouse.

Instructions: Record these journal vouchers in the order given in a general journal with separate debit columns for General Ledger and Accounts Payable and separate credit columns for General Ledger and Accounts Receivable. Designate the journal vouchers by number beginning with one and use this number as the explanation of the entry.

Exercise No. 124

Vouchers were issued by the American Manufacturing Company during the month of July as follows:

July 1. Telephone service for the month, $10.00.

2. Purchased from Johnson Printing Company, on account, office supplies, $25.00; advertising material, $36.50.

July 5. Purchases as follows:

Davis Brothers, terms account, raw materials, \$412.50; merchandise, \$210.00.

Day & Brown, terms 3/10, n/30, raw materials, \$650.00; merchandise, \$150.00.

7. Payroll: labor, \$750,00; foremen and superintendent, \$150.00; office employees, \$100.00; employees in the sales department, \$150.00.

12. Purchased from the Dietz Desk Company on account an office desk and chair, \$125.00.

13. Renewed the petty cash fund of \$50.00; previous charges: selling expenses, \$21.00; freight and expenses in, \$6.50; delivery expenses, \$2.50; stamps and other office expenses, \$12.50; purchases expenses, \$4.00. The amount of the vouchers is sufficient to bring the fund up to \$50.00.

14. Payroll: labor, \$750.00; foremen and superintendent, \$150.00; office employees, \$100.00; employees in the sales department, \$150.00.

17. Purchases as follows:

W. B. Lockett & Company, terms 3/10, n/30, merchandise, \$610.50; raw materials, \$205.50.

Allen Brothers, terms 2/10, n/30, raw materials, \$1,650.00.

19. Central Machine Company, repairs on machine, \$148.50. Debit manufacturing expense.

21. Payroll: labor, \$750.00; foremen and superintendent, \$150.00; office employees, \$100.00; employees in the sales department, \$150.00.

25. Purchased from Atkinson & Son on account, raw materials, \$125.50; merchandise, \$67.75.

28. Payroll: labor \$750.00; foremen and superintendent, \$150.00; office employees, \$100.00; employees in the sales department, \$150.00.

31. Gave Central Realty Company a check for \$250.00 rent.

Instructions: 1. Rule a voucher register containing columns for Vouchers Payable, Raw Materials, Merchandise, Labor, Manufacturing Expense, General Expense, Selling Expense and Sundry Accounts, and record the above vouchers in this register.

2. Make the entries in the cash disbursements journal, assuming that checks have been issued for all vouchers, except purchases on account. The cash disbursements journal should have a column for Vouchers Payable, Purchases Discount and Citizens National Bank.

3. Post the entries affecting the general ledger accounts including the totals; allow four lines for each account.

4. Take a Trial Balance.

Exercise No. 125

Vouchers were issued for the following transactions of the Franklin Printing Company during the month of November:

Nov. 2. Bay State Paper Company, paper to be placed in stock, terms 2/10, n/30, $327.50.

United States Envelope Company, envelopes to be placed in stock, terms 1/10, n/30, $65.70.

3. Simmonds McMullen & Company, insurance on plant and machinery, $300.00.

4. Pennsylvania Oil Company, oil for factory supplies, $3.50.

Bradford Belting Company, repairs on belt on linotype machine (composing room expense), $3.80.

8. Whitaker Paper Company, Tympan Paper for use on the cylinder press (press room expense), $28.50.

Payroll, $605.00: labor, $348.00; foreman in the press room, $50.00; foreman in the bindery, $50.00; foreman in the composing room, $50.00; selling expense, $25.00; general expense, $82.00.

11. E. C. Fuller Company, factory supplies, $14.60.

13. Diamond Machine Company, $32.50: repairs on machines in press room, $8.25; composing room, $6.20; bindery, $18.05. These are expenses of the three departments.

15. Payroll, $605.00: labor, $348.00; foreman in the press room, $50.00; foreman in the bindery, $50.00; foreman in the composing room, $50.00; selling expense, $25.00; general expense, $82.00.

Renewed the petty cash fund, $19.60. Charges for previous expenditures as follows: press room, 60 cents; bindery, $1.00; selling expense, $7.00; general expense, $6.00; advertising, $5.00.

Nov. 19. Dearborn Paper Company, paper to be placed in stock, $221.50.

22. Payroll, $605.00: labor, $348.00; foreman in the press room, $50.00; foreman in the bindery, $50.00; foreman in the composing room, $50.00; selling expense, $25.00; general expense, $82.00.

24. Citizens' Telephone Company, telephone service, $4.50.

29. Payroll, $605.00: labor, $348.00; foreman in the press room, $50.00; foreman in the bindery, $50.00; foreman in the composing room, $50.00; selling expense, $25.00; general expense, $82.00.

30. Armstrong Realty Company, rent, $200.00; charge one-fourth to general expense and the other three-fourths equally between the press room, composing room and bindery.

Underwood Typewriter Company, typewriter, $100.00.

Instructions: 1. Rule a voucher register with columns for Vouchers Payable, Materials, Labor, Press Room Expense, Composing Room Expense, Bindery Expense, General Expense and Sundry Accounts, and record the above transactions in the order given.

2. Make the entries in the cash disbursements journal, assuming that checks had been issued for all vouchers, except purchases on account. The cash disbursements journal should have columns for Vouchers Payable, Purchases Discount and American National Bank.

3. Post the entries affecting the general ledger accounts, including the totals, allowing four lines for each account.

4. Take a Trial Balance.

Exercise No. 126

The following transactions affecting the Notes Receivable and Notes Payable accounts were performed by the D. C. Carpenter Company during the month of October.

Oct. 5. Received from Smith Brothers to apply on account, note for $250.00 dated September 5th, due in 60 days. Gave them credit for the face of the note less interest at 6% from October 5th to maturity.

6. Borrowed $5,000.00 from the First National Bank on firm's 30-day note dated today with interest at 6%. Received credit for the face of the note.

Oct. 7. Received from Rice & May to apply on account, note for $650.00. This note was signed by N. L. Roberts made payable to Rice & May and endorsed by them. It is dated September 2nd due in 90 days with interest at 6%. Give them credit for the face of the note plus interest to date.

10. Accepted Higley Brothers 10-day draft for $1,000.00 to apply on account.

15. Gave the Citizens' Motor Car Company two notes for $500.00 each, due in 30 and 60 days respectively with interest at 6% from date as part payment of a motor truck to be used in the delivery department.

18. Received from Simpson Brothers, to apply on account, their 60-day note for $650.00, dated September 18th with interest at 6% from date. Gave them credit for the face of the note plus interest to date.

25. Gave C. A. Arnold & Son our note dated today due in 60 days for $1,010.00 in payment of account of $1,000.00 and interest on the account for 60 days, $10.00.

27. Received from Robert E. Menz, two notes in full of account, one for $500.00 dated today and due in 60 days, and the other for $365.75 dated today and due in 90 days, each with interest at 6% from date.

Instructions: 1. Prepare a notes receivable and a notes payable journal similar to Illustrations Nos. 73 and 74, and record the above transactions.

2. Post the entries affecting the general ledger accounts, including the totals, allowing four lines for each account.

3. Take a Trial Balance.

Exercise No. 127

The cash receipts for the Robert McFarland Company for the month of July were as follows:

July 9. Received a check from Richards for $123.54, in payment for account, less $3.82 discount. Enter the amount of the check, plus the discount, in the "Accounts Receivable" column, and the discount in the "Discount" column on the same line.

July 10. Cash sales, \$382.50.

12. Received notice from the First National Bank that note for \$689.37 has been collected, and the amount of the note, with \$10.34 interest, has been placed to the credit of the firm.

13. Received check from Albert Bell & Son for \$86.75 in full of account.

15. Cash sales, \$631.83.

Deposited the cash receipts to date (\$1,924.33) in the First National Bank.

20. Received check from Miller Brothers for \$400.00 in payment for note due today.

25. Received checks from customers as follows:

L. A. Arnold, \$229.54; discount, \$4.68.
General Mercantile Company, \$150.00; discount, \$4.64.
S. A. Watters, \$214.32; discount, \$6.63.

28. Cash sales, \$407.16.

31. Deposited all cash received to date (\$1,401.02) in the First National Bank.

Instructions: 1. Rule a cash receipts journal with column for general ledger, accounts receivable, discount, cash sales and First National Bank, and record the above transactions.

2. Post the entries affecting the general ledger accounts, including the totals. An account is kept in the general ledger with First National Bank.

3. Take a Trial Balance.

CHAPTER XLVI

DIFFERENT TYPES OF LEDGERS

The Cause of Different Types

In a small business it is customary for all the accounts to be kept in one ledger, that is, a bound book with the standard ledger ruling. The reason for this is that the accounts are not sufficiently numerous to warrant the separation of the accounts into different ledgers; the standard ledger ruling is probably best adapted for all kinds of accounts, and it is desirable to use a uniform ruling for all accounts kept in the same ledger; the original cost of the bound books is less, and in a small business, where only a few accounts are kept, few inconveniences arise from the use of this form.

In a large business, where accounts are numerous, it has been found advisable to take certain accounts out of the principal or general ledger and keep them in separate or subsidiary ledgers. When separate ledgers are kept, it is often found desirable to use different ruling for different ledgers because of the variation in the nature of the information desired. When numerous accounts are kept, involving constant change in number and arrangement, it is desirable to abandon the bound form of ledger and resort to the use of loose leaves or cards which can be shifted and changed when necessary.

From the foregoing it can be seen that ledgers may vary as to (1) contents or purpose; (2) ruling; (3) binding or form.

Relation of General Ledger to Subsidiary Ledgers

All the ledgers of a business, however numerous they may be, can be classified as (a) the general ledger, and (b) the subsidiary ledgers. The general ledger derives its name from the fact that it contains complete data concerning the condition and the operations of the entire business, though a considerable part of this information may be in summary form. A subsidiary or *detailed* ledger is one which shows in detail what is shown in summary form in the general ledger. The general ledger will contain a controlling account for each of the subsidiary or detailed ledgers. The balance of the controlling account in the general ledger must at all times equal the sum of the balances shown in the subsidiary or detailed ledger. The detailed ledger with its controlling account may be used very extensively. In the case of a large business corporation, nearly every account in its general ledger may be a controlling account. The student is familiar with the use of the Accounts Receivable account and the Accounts Payable account as controlling accounts for the accounts receivable ledger and the accounts payable ledger. In the same manner the Land account may control a land ledger in which an account is kept with each tract of land owned. The Buildings account may control a buildings ledger which contains an account with each building. The Machinery account may control a machinery ledger which contains an account with each class of machines, or, perhaps, even with each individual machine. In a manufacturing business it is customary to have one detailed ledger, called the *plant ledger*, which contains a record of the land, buildings and machinery. The operation of this ledger will be explained in the chapter on Depreciation.

In the case of many railroad companies, the Equipment account may control an equipment ledger, in which a record is kept of each of the hundreds of locomotives and the thousands of freight and passenger cars, showing for each its date of acquisition, cost, depreciation rate, cost of repairs and other data.

In a manufacturing business the Materials account is usually a controlling account which controls a materials ledger or, as it is frequently termed, a "balance of stores" ledger. The materials ledger has a separate account for each class of materials used by the business. The operations of such a ledger will be explained in a subsequent chapter. In a large manufacturing business the detailed manufacturing expense accounts are kept in a *detailed* or *operating* ledger. The ledger is controlled by the Manufacturing Expense and the Work in Process accounts in the general ledger.

In Chapter XL it has been explained how the stock holdings of the individual stockholders are shown in the stock ledger. The Capital Stock account in the general ledger is the controlling ac-account for the stock ledger. In the same manner, whenever the transactions to be recorded in any group of accounts become very numerous, the group of accounts may be taken out of the general ledger and placed in a subsidiary ledger. Of course in each case a controlling account will be kept in the general ledger.

The Private Ledger

Sometimes there is certain information about the activities of a business which the executives do not desire the employees to know. To avoid this, they take out of the general ledger the accounts which show this information and keep them in a private ledger. The entries affecting the accounts in this ledger will be made by one of the executives or by a confidential clerk. A private journal may be kept in which are recorded the entries which are to be posted to the private ledger.

Some of the information which may be kept in the private ledger is: salaries of executives and particular employees; cost of investments; net earnings of the business; distribution of profits; amount of surplus; amount and nature of stockholdings, and similar items.

Relation of General and Private Ledger

A controlling account for the private ledger which is usually given the caption of "Private Ledger" is kept in the general ledger. A corresponding account entitled "General Ledger" is usually kept in the private ledger. The balance of the Private Ledger account in the general ledger should offset the balance of the General Ledger account in the private ledger at all times.

To illustrate the operation of the private ledger, a few examples may be taken. It may be assumed that the X Company maintains a private ledger in which are recorded among other items the salaries of the executives and the payment of dividends. All cash is recorded in the general ledger. At the end of the month the Treasurer, under whose supervision the private ledger is kept, draws checks amounting to $20,000.00: in payment of officers' salaries, $5,000.00, and in payment of dividends which have been declared payable on the last day of the month, $15,000.00. He instructs the bookkeeper in charge of the general ledger that he has withdrawn $20,000.00 in cash which is chargeable to accounts kept in the private ledger. The bookkeeper will make the following entry on the general ledger:

	Private Ledger	20000		
	Cash			20000

On the private ledger the following entry will be made:

	Officers' Salaries	5000		
	Dividends Payable	15000		
	General Ledger			20000

At the end of the fiscal period a Trial Balance is taken of both the private and general ledgers. These will be combined to obtain the information necessary for the financial reports.

Classification of Ledgers as to Ruling

With respect to the nature of the rulings, ledgers may be classed as (a) Standard; (b) Balance; (c) Progressive; (d) Miscellaneous. Although the particular ruling which may be used in the case of a book of record is usually not of vital importance, yet the form of ruling may greatly facilitate the obtaining of the information desired. It is deemed worth while to notice briefly the types of rulings which may be used for the ledger record.

The Standard Ruling

The "standard" ruling is possibly the one most commonly known. It is termed "standard" because it is the ruling carried in stock by stationers and sold to those who do not desire to incur the expense of having special rulings prepared. It contains two duplicate parts—a debit section and a credit section. One money column appears at the extreme right of each section. The ruling of the standard ledger page is shown in the first form in Illustration No. 75.

Sometimes both money columns are at the center with the date column at the extreme left and right of the page. This form of ruling is shown in the second form in Illustration No. 75.

Year and Month	Day of Month	Explanation	Folio	Amount		Year and Month	Day of Month	Explanation	Folio	Amount	

Year and Month	Day of Month	Explanation	Folio	Amount		Amount		Folio	Explanation	Year and Month	Day of Month

Illustration No. 75—Standard Forms of Ledger Rulings

The Balance Ruling

In some cases it is desirable that the balance of the account be shown at all times so that it can be obtained quickly by reference to the account. In order to make this possible the ledger is ruled with one or two additional columns. After each entry in the account the balance is determined and placed in the balance column. If it is an account which always shows either a debit or a credit balance, but one column is necessary for showing the balance. If it is an account which may show either a debit or a credit balance, it is desirable to have two columns for recording the balance, one for debit balances and one for credit balances. The balance column or columns may be placed between the debit and credit money columns, or they may be placed to the right of the credit money columns. These forms of rulings are shown in Illustration No. 76.

Date	Explanation	Folio	Debit	Debit Balance	Credit Balance	Credit	Folio	Explanation	Date

Date	Explanation	Folio	Debit	Credit	Balance

Illustration No. 76—Balance Column Ledger Rulings

The second form of ledger ruling is especially adapted for use in recording customers' and creditors' accounts, where an up-to-date balance may be desired at any time. It is especially desirable that customers' accounts show the balance at all times so that this information may be readily available for the use of the credit department.

The Progressive Ruling

The progressive or tabular ruling of the ledger provides for the showing of a number of accounts on the same page and the recording of the daily balance of each account. This is made possible by having the sheet ruled with a number of columns and assigning to each account one line and recording the debits and credits and balance in sequence, across the page. This form of ledger was formerly much used in banks. The deposits of the customer were recorded in the first column, his withdrawals in the second and his balance at the end of the day in the third. These entries were continued in this manner across the page, each third column showing the balance. Since the introduction of posting machines the progressive ledger is now rarely used by banks. The form of the progressive ledger is shown in Illustration No. 77.

DEPOSITORS		MONDAY			TUESDAY			WEDNESDAY		
Names	Balance	Checks	Deposits	Balance	Checks	Deposits	Balance	Checks	Deposits	Balance
George Brown	850 00	175 00		675 00	300 00	1000 00	1375 00	525 00	220 00	1070 00

Illustration No. 77—Progressive Ledger

The progressive ledger may be used to advantage by storage warehouses, real estate agencies and other businesses whose patrons are many, but in which the transactions with each customer are of the same nature.

Miscellaneous Rulings

There are many and varied types of rulings which have been designed for the particular use of certain businesses. It is neither possible nor expedient to discuss all these various types at this time. Most of these types are simple modifications of one of the three major types discussed in the preceding paragraphs. In many cases additional columns are added to supply certain information peculiar to the particular concern for which the form is designed. During the last few years machines have come into extensive use as posting devices, and the ledger records have been modified in many cases in order to adapt them for use with posting machines. The form of ledger records suitable for this purpose will be discussed later in this chapter in connection with the explanation of the use of card ledgers.

Classification of Ledgers According to Binding

With respect to their form of binding, ledgers may be classified as (a) bound; (b) loose-leaf, and (c) card. It is deemed worth while to discuss each of these briefly.

The Bound Ledger

The bound ledger has its pages bound in book form. This form of ledger was formerly used very extensively, but at present is rarely found. The advantages claimed for this form of ledger are (a) that the pages can not be misplaced nor lost, and (b) it prevents substitution of sheets containing altered accounts. Although these advantages are worthy of some consideration, they are so overweighed by disadvantages attending the use of the bound ledger, that it is being rapidly supplanted by the loose-leaf or card ledger. The disadvantages arising from the use of the bound ledger are explained in connection with the loose-leaf and the card ledgers.

Loose-Leaf Ledger

The loose-leaf ledger consists of ledger sheets, punched to fit a binder, which, when fastened, holds them securely in place. The sheets are usually made so that they can easily be removed from the binder by simply loosing the clasp which holds the backs of the binder into position. The advantages arising from the use of the loose-leaf ledger are: (1) When all the entries that the space allows have been made on one leaf, a new leaf may be inserted immediately after the old leaf. This makes it possible to have a continuous record of each account, no matter how many pages it may require. In the bound ledger, it is difficult to estimate how many pages to leave for each account, and, when a page is filled, it may be necessary to forward the account to another page in another part of the ledger. This may result in having one account appearing on several pages in the ledger. Even if it is known at the time the account is opened that several pages will be required for it during the fiscal period, and extra pages are left for the account, the possibility arises of having a number of blank pages in the ledger which makes it unnecessarily large. (2) If the loose-leaf form of ledger is used, old and inactive accounts can be removed from the ledger and thus its size can be decreased with the result of more efficient posting. These "dead" accounts can be filed in a "dead file" to which reference can be made if occasion demands it. (3) New accounts may be added to the ledger at any time and placed in their proper sequence. In the case of the bound ledger this may be impossible.

The Card Ledger

The card ledger consists of a separate card for each account, these cards being filed in a tray or other filing device. The card ledger has all the advantages of the loose-leaf ledger with the addition of the following:

1. The individual cards may be removed from the file and placed in a posting machine which makes mechanical posting possible.
2. It increases the speed in locating the accounts, since the cards can be indexed in such a manner as to be easily located.

The card ledger has become very popular during the past few years and is used very extensively for subsidiary or detailed ledgers. It is most frequently used for the accounts receivable ledger and the materials or balance of stores ledger. When the card ledger is used, the cards are filed alphabetically in trays and care must be exercised that cards taken from the trays are replaced in the proper position. As a general rule, the cards should not be removed except by the posting clerks and should be returned by them as soon as the posting is completed. In case others than the posting clerk remove the card, a card or a sheet containing the name of the person who has removed the card should be inserted in the place of the card so removed. The trays of cards are kept in the vault in a filing device made to fit a number of trays.

Method of Classifying and Indexing Card Ledgers

In order that card ledgers may be used efficiently, it is necessary that the cards be classified and indexed according to some systematic and well-thought-out plan. The Library Bureau, which makes a specialty of supplying card ledgers and equipment for their use, gives in one of its advertising pamphlets the following method of classifying the card ledger.

"Card Ledgers may be classified as follows:

1. "*L. B. Automatic Index:* A combination of the best features of the Alphabetic and Numeric methods. Cards are filed alphabetically by surnames, then divided in groups by given names or initials. A group number is entered on each card to insure accuracy in filing.
2. "*Alphabetic:* Cards are filed by name as in a city directory. The L. B. Direct Alphabetic is an improved system with divisions of the alphabet printed on guides in the first two positions at the left. The

names of all the most frequently consulted accounts are printed on guides in two positions at the right.

3. "*Numeric:* A number is assigned to each account. The cards are arranged in numerical order.

4. "*Geographic:* Cards are arranged by towns or salesmen's territories, then by the names in each town.

"Any one of the four methods best adapted to the existing conditions may be used, regardless of the kind of posting machine.

"Ledger cards are filed by the L. B. Automatic Index, an improved principle of alphabetic filing. This method not only furnishes an alphabetic index for surnames as in other methods, *but in addition an index for given names, initials or second firm names.*

"Cards may be found alphabetically without an index; for Geo. W. Amory and Co., take surname guide (blue) *AM* for Amory, then given or firm name, guide (buff) *F-G* for George. In case of a corporation title, as American Glue Company, take the surname guide *AM* for American and the given or firm name quide *F-G* for Glue.

"It also possesses certain features of the numeric system. As 20 is the number for the *AM* or surname division, and 4 is the group number for the *F-G* or given name division, a card for American Glue Company would be assigned group number 24.

"The numeric combination is a factor which produces the great speed in filing, at the same time providing a positive check against misfiling both by name and number.

"In many ledgers a register of accounts is desired, and in such case a registered card is used in conjunction with each guide, names being listed in the order in which accounts are opened. A separate or identifying number may then be given to each account.

"Where a register of accounts is desired, cards similar to the above are used; one for all cards back of each index or guide card. Name of accounts in each group are entered in the order in which they are opened.

"In the L. B. Automatic ledger a register card is used for each group of accounts. The cards in each group are numbered 1 up, in the order in which they are opened, this figure giving a definite number to each account, as American Fidelity Co., 24-1, American Glue Co., 24-2, etc. Tab ledger cards are often used; the tab bearing the final figure of the account number makes reference to the desired account almost instantaneous."

QUESTIONS FOR CLASS DISCUSSION

1

It is frequent practice to keep certain accounts in subsidiary ledgers. What basis do you think an accountant would use to know which accounts to place in these ledgers?

2

One man argues that since all the accounting data must be taken care of either in the general ledger or in a controlling account and special ledger, it might just as well be kept complete in the one general ledger. How would you answer this statement?

3

Is the *form* of organization the only characteristic to be considered when deciding that controlling accounts are necessary in the business?

4

What reasons can you give for placing in the private ledger the items of information discussed in this chapter?

5

Discuss the advantages and disadvantages of maintaining a private ledger from the viewpoint of (a) the Accountant; (b) the Stockholders of the Corporation, and (c) the Public.

6

Examine carefully the two forms of standard ledgers and from the nature of the rulings explain the reason for the widespread use of these forms.

7

The balance ruling is said to be desirable for the use of the credit departments of a business. Why?

8

Compare the kind of information that is obtained from a balance ruling with that obtained from a progressive ruling.

9

Explain the necessary differences in ruling for (a) cash business and credit business; (b) bank and retail stores; (c) commission house and bank.

10

How do the arguments for loose-leaf and card ledgers, as contrasted with bound ledgers, indicate the purpose of accounting, that is, to supply information with reference to the business?

11

Study the illustrations of various methods of classifying card ledgers and determine the kind of businesses which are most benefited by each one of these methods.

LABORATORY MATERIAL

Exercise No. 128

The account of Hammond Brothers, New York, on the books of the Denver Mercantile Company show the following transactions for the first three months of 1921:

Jan. 5. Sales journal, $261.45.
15. Sales journal, $86.45.
20. Sales journal, $127.66.
25. Sales returns on account of sale of January 5th, $14.60.
Feb. 5. Notes receivable journal, $261.45.
18. Sales journal, $116.95.
26. Cash receipts journal, $113.74.
Mar. 5. Sales journal, $130.18.
10. Cash receipts journal, $117.26.
15. General journal credit, $5.16.
20. Sales journal, $315.55.
22. Voucher register, prepaid freight on bill of the 20th, $21.16.
25. Sales returns journal, $22.00.
26. General journal, credit on account of damaged goods in invoice of the 20th, $5.00.
29. Sales journal, $205.50.
30. Cash receipts journal, $100.00.

Instructions: Record the above transactions on a sheet of paper ruled similar to the second form in Illustration No. 76.

Exercise No. 129

The accounts with Notes Receivable, Interest Earned, Selling Expenses, and Accounts Receivable on the books of the Citizens' Grocery Company show the following transactions for the months of July, August and September.

Notes Receivable

July 31. Notes receivable journal, $5,261.50.
Aug. 5. Cash receipts journal, $500.00.
25. Cash receipts journal, $1,862.50.
31. Notes receivable journal, $4,652.95.

Sept. 10. Cash receipts journal, $1,000.00.
30. Notes receivable journal, $32.50.

Interest Earned

July 5. Cash receipts journal, $22.50.
31. Notes receivable journal Dr. $17.50, Cr. $16.90.
Sept. 9. Cash receipts journal, $9.50.

Selling Expenses

July 31. Voucher register, $651.87.
Aug. 5. General journal, Cr. $25.65.
31. Voucher register, $509.70.
Sept. 30. Voucher register, $602.50.

Accounts Receivable

July 1. Balance, $2,750.00.
31. Sales journal, $5,407.85.
Sales returns journal, $215.86.
Cash receipts journal, $3,107.50.
Aug. 5. General journal, Cr. $27.50.
17. Voucher register, Dr. $16.75.
31. Sales journal, $6,251.80.
Cash receipts journal, $4,157.90.
Sales returns journal, $175.85.
Sept. 30. Sales journal, $3,791.68.
Cash receipts journal, $4,005.09.

Instructions: Record the above transactions on a sheet of paper ruled similar to the first form in Illustration No. 76.

Exercise No. 130

The first five accounts in the depositor's ledger of the First National Bank show the following transactions for the week beginning June 10, 1921:

James Allen

June 11. Balance, $315.75; deposited, $200.00.
13. Checks, $97.50.
14. Deposited $450.10; checks, $309.75.
15. Checks, $75.00.
16. Deposited $150.00.

(Continued on page 660)

Robert Brown

June 11. Balance, $2,509.12.
12. Deposited $650.70; checks, $1,307.14.
13. Deposited $500.00.
14. Deposited $307.15.
15. Checks, $1,852.70.
16. Deposited $309.90; checks, $87.65.

S. D. Coulter

June 11. Balance, $815.50; checks, $50.50.
13. Deposited $752.40; checks, $316.06.
14. Checks, $77.50.
15. Deposited $450.00; checks, $182.50.
16. Deposited $250.15; checks, $309.00.

Alvin Davidson

June 12. Deposited $500.00.
14. Deposited $200.00.
15. Checks, $185.60.
16. Deposited $200.00; checks, $100.00.

Chas. E. Donaldson

June 11. Balance, $2,516.70; checks, $714.40.
12. Deposited $299.09; checks, $1,000.00.
13. Checks, $250.00.
14. Deposits $500.00.
15. Deposits $350.00; checks, $414.40.
16. Deposits $500.00; checks, $1,752.50.

Instructions: Record the above transactions on a sheet of paper ruled similar to Illustration No. 77.

CHAPTER XLVII

DEPRECIATION

The Nature of Depreciation

A business firm incurs expenditures for two general purposes: (1) to secure a commodity which it resells or uses in the production of another commodity or service which it manufactures for sale; (2) to secure a "service" which it uses in the production or sale of the commodity in which it deals. When a commodity is purchased which is to be sold in its original form, it is termed *finished stock* or *merchandise.* When a commodity is purchased which is to be used in the production of another commodity, it is called *materials* or *stores.* The method of recording the purchase and disposition of both merchandise and stores has been explained in previous chapters. The services which a business may purchase for use in the production or sale of its product are varied in number and nature, and their treatment in the accounting records varies accordingly. Such "services" include heat, light and power which are used in production; advertising which is used in selling; the services of employees which are used in both production and selling; the services of machinery and equipment which are used in production, and the services of delivery equipment which are used in selling. Although these services may differ in form, they are the same with reference to the function they perform: they assist in the production or sale of the product of the business. The delivery truck performs the same function as its driver; it assists in the rendering of a service to the customer by providing a medium for the delivery of goods. When the business purchases the delivery truck, it is purchasing a service just as much as when it purchases the services of the driver of the truck.

A consideration of the services employed in the operation of a business shows that they may be divided into two main classes:

1. Those which will be consumed within a brief period after their purchase—usually within a period of one year.

2. Those which may continue to be used for a considerable length of time; at least, until after the beginning of the next fiscal period.

The services included in the first class are termed expenses, and are charged to an expense account at the time of their purchase; those included in the second class are termed fixed assets, and are charged to an asset account at the time of purchase. At the end of the fiscal period, all the expense accounts are closed into the Profit and Loss account for the services which they represent have been consumed. There are, of course, deferred charges to expense which are carried forward to the next period. But the fixed asset is purchased because it provides a service and some part of this service is consumed each fiscal period. As a consequence, that part of the service provided by the fixed asset which has been consumed during the period should be treated as an expense of the period. If $100.00 is paid for one month's service of the driver of the delivery truck, the expenses for the month will be charged for this amount. But the services of the driver are of value only when used in conjunction with the services of the delivery truck. If $1,900.00 is paid for the delivery truck which will be of service thirty-six months and have a scrap value of $100.00, it is plain that the service of the delivery truck has cost $1,800.00 for the thirty-six months or $50.00 a month. As explained later in this chapter an equal amount may not be charged for each month. The cost of the month's service of the delivery truck should be treated as an expense in the same way as the cost of the month's service of the driver.

From the foregoing discussion, it should be plain that fixed assets are purchased because a service is obtained from their use; that due to their use, as well as to other causes, they continuously decrease in value, and that this decrease in value is a part of the cost of the service received from their use. This periodic decrease in value of fixed assets is known as *depreciation.* Its amount must be determined at the end of each fiscal period and shown on the reports and in the accounts.

Causes of Depreciation

There are two principal causes for depreciation:

1. Wear, due to use.
2. Lapse of time.

All fixed assets used in the operations of a business, with the exception of land, wear out and in time become useless, or, at least, too inefficient to be useful. No matter how carefully a fixed asset may be used or how much may be spent in keeping it in repair, the time will come when it is no longer profitable to continue it in use.

Although the use made of a fixed asset is the principal factor in determining the amount of its depreciation, it decreases in value to some extent because of the lapse of time. If a machine is set aside and not used at all, it will in time rust and decay until it is unusable. Consequently the age of an asset must be considered in determining its depreciation. It is not an easy problem to estimate in terms of depreciation the effect of use and the lapse of time on an asset. If, however, a careful study is made of the experiences of the individual firm, as well as the experiences of other firms, in the same or similar lines of business, it is possible to make an estimate which will be exact enough for practical purposes.

Sometimes there is an attempt to take into consideration obsolescence in the calculation of depreciation. Although it is often desirable to make some provision for the possible obsolescence of certain assets, it is not desirable to include this provision in the depreciation charge. Depreciation is sufficiently definite to be predetermined with considerable accuracy, but obsolescence is not definite and can not be determined with even approximate accuracy. To include it in the depreciation provision prevents an effective control over the depreciation charge. If obsolescence is anticipated in connection with certain equipment, it is better to set up a separate reserve to provide for this. Care should be taken to distinguish between *depreciation* and *fluctuation*. There is a decided difference between the two. Depreciation is always a decrease in value while fluctuation may be either an increase or a decrease; depreciation is due to the use of the asset in the business while fluctuation is due to market conditions; depreciation occurs only in connection with fixed assets while fluctuation occurs only in connection with current assets. Fixed assets may of course increase or decrease in value due to market conditions, but these increases and decreases are not recorded in the records except under extraordinary conditions. Liberty bonds and merchandise inventories *fluctuate* in value; buildings and machinery *depreciate* in value.

Depreciation must also be distinguished from *depletion*. Depletion is a decrease in value of an asset because the asset becomes a part of the product produced. For instance, the value of the ore of a coal mine decreases in value because the ore becomes the coal which is sold. The ore of the coal mine is subject to *depletion;* the machinery used in mining the ore is subject to *depreciation.*

Methods of Calculating Depreciation

There are several methods which are sometimes used in calculating depreciation, but there are only two methods which are used with sufficient frequency to warrant consideration here. These two methods are:

1. The straight-line method.
2. The declining balance method.

The *straight line* method is so termed because the book value of the asset, if plotted, would represent a straight line. The purpose of this method is to charge an equal amount for depreciation for each fiscal period during the life of the asset. To illustrate: A building which costs $25,000.00 has an estimated life of eighteen years and an estimated scrap value of $2,500.00. Consequently, the difference between the cost and the scrap value of building, or $22,500.00, must be charged off as an expense during the eighteen years of its life. By the straight-line method, one-eighteenth of this amount, or $1,250.00, would be charged as an expense each year. In calculating depreciation by the straight-line method, it is customary to take a fixed percentage of the original cost each year. This percentage is such as to decrease the book value of the asset to its scrap value by the end of its life. In the case of the foregoing illustration five per cent of the original cost of $25,000.00, or $1,250.00, would be charged off each year.

The *declining balance* method of calculating depreciation is so termed because when this method is used, a fixed percentage of the balance, obtained by subtracting the depreciation of previous periods from the original cost of the asset, is charged off each year. To illustrate: A machine costs $100.00, and it is decided to charge ten per cent of the declining balance as depreciation each year. The depreciation for the first year will be ten per cent of $100.00, or $10.00; for the second year, ten per cent of $90.00, or $9.00, and for the third year, ten per cent of $81.00, or $8.10. The depreciation for each succeeding year will be ten per cent of the balance obtained by subtracting the depreciation of previous years from the original cost of $100.00.

It will be noticed that by the *straight line* method a uniform amount is charged for depreciation each year, and that by the *declining balance* method the depreciation becomes smaller each year. It is argued by those who advocate the use of the reducing balance method that the cost of repairs is small when the asset is new, but heavy when the asset is old. Consequently, if the depreciation is large when the asset is new and small when it is old, there is a tendency for the total maintenance cost of repairs plus depreciation to be uniform throughout the life of the asset.

Method of Showing Depreciation on the Reports

The depreciation must be shown both on the Balance Sheet and on the Statement of Profit and Loss. On the Balance Sheet, the total depreciation to date must be shown as a deduction from the original cost of the asset. If a building costs $25,000.00 and the yearly depreciation charge is $1,250.00, at end of the fourth year the depreciation will be shown as follows:

Building	$25,000.00	
Reserve for Depreciation . .	5,000.00	$20,000.00

On the Statement of Profit and Loss the depreciation of each year must be shown as an expense. The depreciation should be analyzed and shown on the Statement of Profit and Loss as an expense of the department which uses the asset on which the depreciation is calculated. For instance, the depreciation on machinery and equipment used in manufacturing will be shown as a manufacturing expense, the depreciation on delivery equipment will be shown as a selling expense and the depreciation on office equipment used in the general offices will be shown as an administrative expense. It should be emphasized that depreciation is an operating expense and must always be deducted in arriving at the net operating profit of a business.

Method of Recording Depreciation in the Accounts

The estimated depreciation for the fiscal period must be recorded in the accounts at the end of the period. On the Statement of Profit and Loss, the periodic depreciation is shown as an expense, and on the Balance Sheet it is shown as an addition to the Reserve for Depreciation account. Consequently in the accounts the depreciation for the fiscal period must be shown as a debit to an expense account and a credit to a reserve for depreciation account. There will be a separate reserve for depreciation account for each fixed asset account in the ledger, except for such fixed assets as Land

and Goodwill, which are not subject to depreciation. It is important to remember that the depreciation on different kinds of assets is charged to different expense accounts, so that it may be shown under the proper classification of expenses on the Statement of Profit and Loss. It is clearly erroneous to set up one depreciation account to which is charged the depreciation on all assets.

Operation of the Reserve for Depreciation Account

At the end of each fiscal period the Reserve for Depreciation account for each asset is credited with the depreciation on that asset for the period. The reserve account, therefore, shows the accumulated depreciation to date on the asset for which it is kept. The asset account shows the original cost of the asset. By subtracting the balance of the Reserve for Depreciation account from the balance of the asset account, the *book value* of the asset can be determined. This is the value shown on the Balance Sheet.

If the depreciation on a fixed asset is estimated exactly, its book value at the end of its life will equal its scrap value. To illustrate: a machine which costs $250.00 has an estimated life of eight years and an estimated scrap value of $50.00. It is decided to use the straight-line method of depreciation and charge off ten per cent of the original cost each year. If the machine is purchased on December 31, 1912, the asset account and the reserve account will appear on December 31, 1920, as follows:

Machine X

1912 Dec.	31			250					

Reserve for Depreciation on Machine X

					1913 Dec.	31			25
					1914 Dec.	31			25
					1915 Dec.	31			25
					1916 Dec.	31			25
					1917 Dec.	31			25
					1918 Dec.	31			25
					1919 Dec.	31			25
					1920 Dec.	31			25

It will be seen that the book value of the machine is $50.00, which is its estimated scrap value. If the machine is sold for cash at its estimated scrap value, the following entry will be made:

		Cash	50		
		Reserve for Depreciation of Machine X	200		
		Machine X			250

As a matter of convenience the cash received may be recorded in the cash book debiting cash and crediting the asset account and a journal entry made for the debit to the reserve account and the credit to the asset account. This is immaterial so long as care is taken to see that at the time of the disposal of the asset, the asset account is credited for the cost value. When the entry given above is posted, the asset account and the reserve account will balance, and will be ruled accordingly.

In the foregoing illustration it is assumed that the original life of the asset and its scrap value were estimated with absolute exactness. Usually this is not possible. The life of the asset will be either shorter or longer than estimated; the scrap value will be more or less than expected. To illustrate the procedure in such cases, it may be assumed that the Machine X is found to be so inefficient at the end of seven years that it sold as scrap for $50.00. The asset account and reserve account will show the following balances at that time:

Machine X

1912 Dec.	31			250					

Reserve for Depreciation on Machine X

					1919 Dec.	31			175

The sale of the machine will be recorded by a debit to Cash and a credit to the Machine account. The Machine account will then appear as follows:

Machine X

Dec.	31			250	Dec.	31			50

The asset account now shows a balance of $25.00 more than the balance of the reserve account. This is due to the fact that insufficient depreciation has been charged during previous years because of an error in estimating the life of the machine. If the

$25.00 had been charged as depreciation during previous years the profits of those years would have been smaller, and the profits carried to Surplus each year would have been decreased. Consequently the Surplus account is $25.00 larger than it would have been if the proper amount of depreciation had been charged during preceding years. This should be corrected by debiting Surplus for the $25.00, excess of the balance of the asset account over the reserve account. In order to accomplish this and to close the asset and reserve accounts, the following journal entry will be made:

		Surplus	25		
		Reserve for Depreciation on Machine X	175		
		Machine X			200

If the machine should continue in use beyond its estimated life of eight years, the opposite situation to that given above will exist. The balance of the reserve account will be larger than the balance of the asset account. This would be due to the fact that too much depreciation has been charged during previous years. Since too large a charge for depreciation has been made, Surplus is smaller than it should be. To correct this, Surplus is credited for the excess of the balance of the reserve account over the asset account, and the reserve account is debited for the same amount.

The two illustrations given above should be sufficient to show the method by which the reserve for depreciation account and its corresponding asset account are operated. To review and summarize, the following important principles governing the operation of these accounts are stated:

1. Debit a fixed asset account with the *cost* of the asset when it is secured.

2. Credit a fixed asset with the cost of the asset when it is disposed of. This credit may be made for convenience by means of two or more entries. This is immaterial so long as the total credits made at the time of disposal equal the original cost.

3. Credit the reserve for depreciation account at the end of each fiscal period for the estimated depreciation for the period and debit the proper expense account.

4. When a disposition is made of the asset, debit the reserve for depreciation for the difference between the cost and the disposal price.

5. After the entry called for in (4) is made, the balance of the Reserve for Depreciation account is closed into the Surplus account.

The Plant Ledger

A plant ledger is a record which contains an account with each separate unit of plant and equipment. It serves as a subsidiary record to the controlling account or accounts with plant and equipment which are kept in the main ledger. The plant ledger is usually kept on cards, each card providing a record of one unit of equipment. The size of this unit will vary depending on conditions. There may be a separate account for each machine, or, if several machines which are of the same pattern and size are purchased at the same time, they may all be recorded in one account. Each account in the plant ledger will show at least three things:

1. The date of purchase and original cost of the equipment.
2. The amount of depreciation which has accrued on it to date.
3. The present book value.

Sometimes the repairs which are made on the asset are also shown in the plant ledger.

It will be understood that if the repairs are entered on the plant ledger account these do not affect the value of the equipment, since, as previously explained, they are treated as an expense and are never added to the asset. However, it is useful to have them entered on the plant ledger account for memorandum purposes, so that in making future estimates, it will be possible to obtain

(Continued on page 670)

Plant Ledger — Our Plant No.____

Name of Item____ Made By____ Maker's No.____ Acc't No.____

____ Bldg.____ Dept.____

Section — Est. Life

Indicate below whether machine proper, accessories, foundation, or additions, etc.	FIXED ASSETS		DEPRECIATION RESERVE			
	Detail	Total	Date	Rate	Annual	Total

Illustration No. 78—Plant Ledger

information of the past cost of repairs, not only in total, but also by departments and by units.

It is desirable that a periodical check be made on the accuracy of the value of the plant and equipment as shown by the records. If a plant ledger is maintained in the form described, it is possible to obtain the original cost. the accrued depreciation and the repairs incurred on each unit of plant and equipment. The depreciation shown as accrued is only an estimate. however, and the expenses which have been incurred may have been more or less than required to maintain the equipment in an efficient condition. Unless some steps are taken to determine the accuracy of the estimated depreciation and the sufficiency of the repairs which have been made, it may be determined in the future that both the depreciation and the repairs may have been inadequate, and consequently there will be an unduly heavy charge against the earnings of future years. To avoid this, it is desirable that a periodical inventory or appraisal be made of plant and equipment and used as a means of checking the plant ledger. By this means, inaccuracies in depreciation estimates and inadequate repairs can be discovered and corrected. It is also possible that too liberal depreciation may be allowed or too extensive repairs made, and appraisals will serve to disclose these contingencies. Such appraisals will also show whether it is better to purchase a new machine or repair the old one.

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate the relation between the fixed assets of a manufacturing business and the cost of the goods produced by this business.

2

Explain and illustrate in what ways an expense and a fixed asset are similar; in what ways they are dissimilar.

3

What is the test by which to determine whether an expenditure should be regarded as an expense or as an asset charge?

4

Is this test an exact one, or is it a matter of judgment?

5

In case of doubt as to whether an item is an expense or a fixed asset, what is the better policy for the accountant to follow?

6

Explain and illustrate the principal causes for depreciation.

7

The Federal Income Tax Law provides that "a reasonable allowance for the exhaustion and wear and tear of property used in a trade or business, including a reasonable allowance for obsolescence" may be treated as a deduction for determining the net income for the purposes of the income tax. Discuss this provision from the viewpoint of the income tax and also from the viewpoint of determining the depreciation to be recorded in the accounts.

8

Explain the difference between (a) depreciation and fluctuation; (b) depreciation and depletion.

9

Explain and illustrate the different methods of calculating depreciation.

10

Explain and illustrate the method by which depreciation should be shown on the Balance Sheet and on the Statement of Profit and Loss.

11

The President of the X Manufacturing Corporation argues that it is unnecessary to allow depreciation on his machinery and equipment because he makes sufficient repairs each year to keep the equipment in good working condition, and consequently it does not decrease in value. How would you answer this argument?

12

In the ledger of the X Corporation there appears an account labeled "Depreciation" to which is charged the estimated depreciation on all the assets of the business. State your opinion as to the desirability of this method of recording depreciation of the X Corporation.

13

When an asset is disposed of what entries should be made (a) if the asset is sold for its book value; (b) if it is sold for less than its book value; (c) if it is sold for more than its book value?

14

What is the object of the plant ledger? Explain its relation to the general ledger.

15

What information should the plant ledger contain?

LABORATORY MATERIAL

Practice Set No. 4, Chapter XLVIII, should be completed next.

CHAPTER XLVIII

THE APPLICATION OF PRINCIPLES—A PRACTICE SET

Purpose of Chapter

The purpose of this chapter is to provide material which will illustrate and require the application of principles discussed in the preceding chapters. Its specific purpose may be outlined as follows:

1. To provide practice in the use of the accounts and records peculiar to a corporation.
2. To provide practice in the operation of the major accounts of a manufacturing business.
3. To provide further practice in the preparation of accounting records, accounts, and reports.

Details are eliminated as much as possible, routine transactions are reduced to a minimum, and the transactions are selected so as to illustrate the important principles with reference to corporation and manufacturing accounts. Clerical work is eliminated in every way possible so that the student may be left free to concentrate on the principles involved.

Description of Practice Set

This set represents a manufacturing business conducted by a corporation. In order to make the manufacturing transactions as simple as possible, it was deemed advisable to select a business producing only one commodity, of which the production process is short and simple. For this reason, an ice cream manufacturing business was chosen. The transactions given in the set were adapted from the records of a manufacturing business. Changes were made to reduce the number of the routine transactions and to increase the number of the strictly corporation transactions. The transactions given, however, are representative of those of the business from which the data for this set was obtained.

Although this set is adapted from the records of a business manufacturing ice cream, it is not its primary purpose to illustrate the accounting for such a business; rather, this business was chosen because the transactions performed by it were deemed suitable to illustrate in a simple manner the principles of manufacturing and corporation accounting which are deemed of primary importance to the beginning student, and these principles, if once mastered, can be applied to any line of business.

The transactions cover a period of two months. At the end of the first month the student takes a Trial Balance, but does not prepare financial reports nor close the ledger. At the end of the second month a Trial Balance is taken, a Balance Sheet and a Statement of Profit and Loss prepared, and the ledger closed. It is customary for a business, such as is represented by this set, to close its books monthly. The closing is omitted at the end of the first month in order to eliminate the clerical work involved. The student has already been given a thorough drill in the closing of the ledger accounts and the preparation of financial statements.

The Accounts Used

Before making any entries, the student should familiarize himself with the accounts given in the following outline:

First National Bank (4)
Farmers Trust Company (4)
Petty Cash (4)
Notes Receivable (4)
Accounts Receivable (10)
Reserve for Bad Debts (4)
Accrued Accounts Receivable (6)
Inventory of Finished Goods (4)
Inventory of Merchandise (4)
Inventory of Raw Material (4)
Subscribers to Common Stock (16)
Subscribers to Preferred Stock (12)
Deferred Charges (6)
Office Equipment (6)
Reserve for Depreciation of Office Equipment (4)
Delivery Equipment (4)
Reserve for Depreciation of Delivery Equipment (4)
Machinery and Factory Equipment (4)
Reserve for Depreciation of Machinery and Factory Equipment (4)
Buildings (4)
Reserve for Dep. of Buildings (4)
Land (4)
Goodwill (4)
Parker & Thompson, Vendors (10)
Notes Payable (4)
Vouchers Payable (10)
Accrued Accounts Payable (8)
Dividends Payable, Preferred Stock (4)
Dividends Payable, Common Stock (4)
Mortgage Payable (4)
Surplus (4)
Capital Stock—Preferred (4)
Capital Stock—Common (4)
Unissued Capital Stock—Preferred (8)
Unissued Capital Stock—Common (10)
Treasury Stock (4)
Ice Cream Sales (6)
Merchandise Sales (16)
Ice Cream Sales Returns (4)
Ice Cream Sales Allowances (4)
Raw Material (4)
Freight In (8)
Merchandise Purchases (4)
Direct Labor (4)
Indirect Labor (4)
Ice (8)
Light, Heat and Power (4)
Repairs on Machinery (4)
Factory Repairs (4)
Factory Supplies (4)
Insurance (4)
Depreciation on Building (4)
Depreciation on Machinery and Factory Equipment (4)
Delivery Expenses (4)
Selling Expenses (4)
Advertising (4)
Officers Salaries (4)
Administrative Expenses (4)
Purchases Discount (4)
Interest on Notes Receivable (5)
Interest on Notes Payable (4)
Manufacturing (4)
Trading (16)
Profit and Loss (8)

The number immediately following each account title indicates the number of lines to be allowed for the account when it is opened in the ledger.

Explanation of Accounts

The purpose of most of the accounts which appear in the foregoing outline should be apparent to the student. In case he does not understand the purpose of any account, he should determine its purpose by reference to the text. There are a few explanations with reference to the accounts in the outline which may be of value:

Accrued Accounts Receivable

Accrued accounts receivable are those personal accounts resulting from accrued assets at the close of the fiscal period (Chapter XXVII). For the sake of brevity, all accrued accounts receivable will be shown in one account. The nature of each item will be shown in the explanation column. On the Balance Sheet each item will be shown separately.

Goods in Process

It will be noticed that there is no account for Goods in Process Inventory. Due to the brevity of the manufacturing process, all goods in process are completed each day. Consequently there is no inventory of goods in process at the end of the month. There is also no need for setting up a Goods in Process account during the period of operation. At the end of the month the raw materials on hand will be deducted from the raw materials purchases plus the inventory of raw materials at the beginning of the month to determine the cost of the materials used in manufacturing. To this is added the cost of labor and manufacturing expenses for the month to determine the cost of the goods produced during the month. The cost per gallon is ascertained by dividing the total cost of the goods manufactured during the month by the number of gallons manufactured. Although different kinds of cream are manufactured, they differ only as to flavor, color and form in which used. In the business under consideration all the cream manufactured is of the same grade and therefore costs the same to produce.

Deferred Charges

All deferred charges are recorded in one account. The name of each item is written in the explanation column. On the Balance Sheet the items are shown separately.

Vouchers Payable

This account takes the place of Accounts Payable when the voucher system is used. It is a controlling account for the vouchers issued. At the end of the month it is credited with the total vouchers issued during the month as shown by the total of the "Vouchers Payable" column in the voucher register, and debited with the total vouchers paid during the month as shown by the "Vouchers Payable" column in the cash disbursements journal. The balance of this account shows the total vouchers unpaid at the end of the month.

Accrued Accounts Payable

Accrued accounts payable are those personal accounts resulting from accrued liabilities at the close of the fiscal period (Chapter XXVII). The accrued payables, like the accrued receivables, are shown in one account. The name of each item is entered in the explanation column. On the Balance Sheet the items are shown separately.

Sales

The principal sales of the company are of ice cream. In addition, a small amount of ice cream cones, extracts and similar items are sold to customers. These are termed Merchandise Sales to distinguish them from sales of the manufactured product. For the convenience of customers ice is sometimes provided them. In such cases the ice is transferred to the customer at cost and is credited to the Ice account, thereby reducing the charge for ice to the Manufacturing account. Such sales are so infrequent that it is easier to handle them in this way than to set up a Sales account for them.

Depreciation

Depreciation on buildings and depreciation on machinery and factory equipment are manufacturing costs and would be charged to the Manufacturing Expense account, if one was kept. Since each manufacturing cost is shown in a separate account in this set, the depreciation cost in manufacturing is shown under the caption of "Depreciation on Building" and "Depreciation on Machinery and Factory Equipment." The depreciation on office equipment and delivery equipment is charged direct to the Administrative Expenses and Selling Expenses accounts.

Manufacturing and Trading Accounts

The Manufacturing and Trading accounts are used as summary accounts for closing purposes in the manner in which they are explained in Chapter XLIV.

Customers' and Creditors' Accounts

The individual accounts of the customers will be shown in the accounts receivable ledger in alphabetical order according to the following list. When the voucher system is used, accounts with creditors need not be kept. The number immediately following each name in the following list indicates the number of lines to be allowed for the account when it is opened in the accounts receivable ledger.

Allen Drug Company (7)
American Cafe (9)
Barnum & Co. (3)
S. M. Black (20)
Castle Hotel (8)
Cline's Restaurant (7)
College Inn (7)
Cooper & Cooper (7)
Cox Drug Store (7)
Cummins & Co. (3)
Engleman's Delicatessen (4)
Excelsior Candy Company (5)
Jackson Hotel (6)
Jenkins Bros. (17)
Jones Company (9)
Lake Side Park Co. (6)
Lake View Pharmacy (5)
Manning Manufacturing Co. (2)
Meisner & Meisner (12)
W. E. Mitchell (7)
Morgan's (9)
Morris & Morris (7)
New York Candy Co. (3)
North Side Boat Club (4)
Olson's Restaurant (3)
Palace Candy Co. (3)
Peterson's Confectionery (6)
M. L. Roberts (7)
Robey & Son (7)
Scott & Lanning (15)
Star Cafeteria (7)
Stewart & Stewart (3)
R. G. Thorley & Son (4)
West Side Drug Store (5)

Books of Original Entry

The following books of original entry are used in this set: cash receipts journal; cash disbursements journal; sales journal with special columns; sales returns journal; voucher register with special columns; notes receivable and payable journals with special columns; petty cash book; and general journal. Transactions will be posted from these books to the general ledger and the accounts receivable ledger. A controlling account will be maintained in the general ledger for accounts receivable and vouchers payable.

Corporate Records

An account will be kept with each subscriber for stock in the subscribers ledger, showing the par value of the stock subscribed and payments on the same. When the stock subscribed has all been paid, the account in the subscribers ledger will balance and an account will be opened with the subscriber in the stock ledger. Accounts with subscribers for common and preferred stock will be kept separate both in the subscribers ledger and in the stock ledger. The ruling in the subscribers ledger will be the standard form of ledger ruling illustrated throughout the text. The ruling in the stock ledger will be the form discussed and illustrated in Chapter XLI.

Illustration of Books of Original Entry

All the foregoing books of original entry are discussed and illustrated in Chapter XLV, except the general journal and the sales returns journal. These are briefly described as follows:

General Journal

The standard two-column journal as discussed and illustrated in previous chapters is used in this set. Among the transactions recorded in it are purchases and sales allowances. Sales returns are recorded in the sales returns journal.

Sales Returns Journal

The ruling in this book is similar to that in the general journal. Only those transactions in which credit is allowed for ice cream sales returned are recorded in it. The name of the customer, description of the merchandise, and amount of credit are shown in each entry. The amount of credit for each return is entered in the first column and posted to the credit of the customer's account in the accounts receivable ledger. At the end of the month the Ice Cream Sales Returns account is debited and the Accounts Receivable account credited with the total. The entry for this posting should be in the same form as an entry in the general journal, utilizing the first column for the debit amount and the second column for the credit amount. If only one column is provided in the ruling for the sales returns journal, the entry for the total may be made in the general journal at the end of the month.

Practice Set No. 4
MEMORANDA OF TRANSACTIONS

MANUFACTURING BUSINESS

SUPERIOR ICE CREAM COMPANY, INCORPORATED

July 1

J. A. Parker and H. D. Thompson are operating an ice cream manufacturing business as partners under the firm name of Parker & Thompson. J. A. Parker owns two-thirds and H. D. Thompson one-third of the net assets of the business. J. A. Parker wishes to retire and has agreed to sell his interest to a corporation promoted by H. D. Thompson. It is agreed that this corporation when organized shall pay the partners $135,000.00 for the business. J. A. Parker agrees to accept the following in payment for his two-thirds interest in the purchase price: cash, $10,000.00; four notes, each for $5,000.00, with interest at 6% from date, payable in 30, 60, 90 and 120 days respectively; a five-year mortgage note for $30,000.00 with interest at 6%; the balance in preferred stock at par. H. D. Thompson agrees to accept common stock at par in payment for his one-third interest in the purchase price.

With this agreement between the partners, H. D. Thompson succeeds in interesting some of his business acquaintances. They hold a meeting and decide to incorporate under the name of the Superior Ice Cream Company, with an authorized capital stock of $150,000.00, having one thousand shares of common stock, par value $100.00, and five hundred shares of 7% cumulative preferred stock, par value $100.00. The organizers agree to subscribe for sufficient common stock to provide the necessary working capital for the corporation at the beginning of its operations. Common and preferred stock will be offered for sale on the market as additional funds are needed for the operations of the business.

In pursuance of this policy the following subscriptions to common and preferred stock are made with the understanding that H. D. Thompson is to accept 450 shares of common stock in payment for his interest in the assets of the partnership; that J. A. Parker is to accept 300 shares of preferred stock in part payment for his interest in the assets of the partnership; and that each of the other subscribers is to pay one-half of the par value of the stock subscribed upon call of the board of directors and the remaining one-half in two equal installments, each installment to be paid on separate calls of the board of directors. H. D. Thompson subscribed for fifty shares in addition to the 450 shares which he accepts as payment for his interest in the partnership.

Subscribers to common stock:

H. D. Thompson, 222 Main St.	500 shares
George Rooney, 605 Main St.	150 shares
M. E. McMahon, 117 Haddon Place . . .	150 shares
A. J. Black, 1401 Walnut St.	15 shares
M. L. Johnson, 1250 Union St.	10 shares

Subscriber to preferred stock:

J. A. Parker	300 shares

The incorporators have applied to the Secretary of State for a charter.

July 8

The Secretary of State has granted the charter and it has been properly recorded. At a meeting of the stockholders the following were elected as directors: George Rooney, M. E. McMahon, H. D. Thompson, A. J. Black, M. L. Johnson.

The directors have elected the following officers: George Rooney, President; M. E. McMahon, Vice-President; H. D. Thompson, Secretary-Treasurer.

July 9

At the meeting of the board of directors held on this date, the following business was transacted:

(a) It was agreed to purchase the assets of the firm of Parker & Thompson, assuming all liabilities as shown by the books at the close of business on this date. The purchase price is $135,000.00, payable as follows:

J. A. Parker: cash, $10,000.00; four notes for $5,000.00 each, with interest at 6% from July 10th, payable in 30, 60, 90 and 120 days respectively; a five-year mortgage note for $30,000.00, with interest at 6%, interest payable semi-annually; 300 shares of preferred stock in the Superior Ice Cream Company.

H. D. Thompson: 450 shares of common stock in the Superior Ice Cream Company.

The business of Parker & Thompson is to be taken over as of July 10th, and payment is to be made at this time.

(b) A call is issued for payment on July 10th of one-half of the stock subscribed for by the original subscribers.

Two separate journal entries are required, one to place the authorized capital stock on the books and one to record the original subscriptions. Since it has been agreed to require payment for only one-half of the stock subscribed, it will be necessary to have separate accounts with each subscriber in the subscribers ledger to show the transactions with subscribers in regard to the purchase of stock and payment for same. If these were numerous a separate journal would be provided for recording the transactions. In this set there are only a few transactions of this nature and the information for the subscribers ledger posting can be obtained from the general journal entry. Thus, in this second entry, Subscribers to Common Stock will be debited and Unissued Capital Stock—Common credited, with an explanation showing the name and address of each subscriber and the amount of stock subscribed.

July 10

Parker & Thompson present the following statement showing their financial condition at the close of business July 9th. The Superior Ice Cream Company is to pay $135,000.00 for the partners' interests as outlined in the first transaction on July 9th.

ASSETS:	
Accounts Receivable	$ 6,102.00
Inventory of Finished Goods	1,975.00
Inventory of Merchandise	525.00
Inventory of Raw Materials	7,600.00
Office Equipment	1,782.00
Delivery Equipment	6,400.00
Machinery and Factory Equipment	32,400.00
Buildings	40,612.50
Land	30,000.00
Total Assets	$127,396.50
LIABILITIES:	
Accounts Payable	3,300.00
Net Proprietorship	$124,096.50

The journal entries required to record this transaction are as follows:

(a) To record the assets and goodwill received from Parker & Thompson, debit each asset and Goodwill and credit Parker & Thompson, Vendors. The goodwill is the difference between the net assets and the contract price.

(b) To record the liabilities assumed, debit Parker & Thompson, Vendors, and credit Vouchers Payable.

Received the following checks in payment for one-half of the stock subscribed: George Rooney, $7,500.00; M. E. McMahon, $7,500.00; H. D. Thompson, $2,500.00; A. J. Black, $750.00; M. L. Johnson, $500.00.

When there are a number of transactions of this nature, special columns are provided in the cash receipts journal for the common stock subscribers and the preferred stock subscribers ledger. Since there are only a few in this set, the total amounts received from the common and the preferred stockholders are entered in the "General Ledger" column on a line with the name of the account; the name of the individual subscriber from whom a check is received should be indicated in the cash receipts journal by writing the name of the subscriber and the amount below the name of the account beginning the name one-half inch to the right of "Subscribers" and entering the amount at the left of the first money column. If desired, the amount received from each subscriber may be entered in the "General Ledger" column, the total footed in pencil, and this amount posted to the General Ledger account.

H. D. Thompson, the secretary and treasurer of the corporation, has opened an account with the First National Bank and deposited all the checks received on account of stock sold; cash received in the operations of the business will be deposited daily.

An account is kept in the general ledger with the First National Bank, and columns are provided for transactions with the bank in the cash receipts and cash disbursements journals. This deposit will be entered in the cash receipts journal in the "First National Bank" column. See explanation of the cash receipts journal on page 636.

Make settlement for the amounts due J. A. Parker and H. D. Thompson for the assets of the Parker & Thompson business per agreement outlined in the first transaction on July 9th.

This transaction requires the preparation of Voucher No. 1, the issuance of Check No. 1 on the First National Bank for $10,000.00, four notes for $5,000.00, each due in 30, 60, 90 and 120 days respectively, one mortgage note for five years, a certificate of stock for 300 shares preferred stock, and a certificate of stock for 450 shares common stock. The student will not be required to issue any of these papers unless blank vouchers and a book of blank certificates of stock accompany the practice material, in which case he will prepare the voucher (Illustrations Nos. 66 and 67) and issue the certificates (Illustration No. 56).

The entry in the voucher register is for the $10,000.00 cash payment; the entry in the cash disbursements journal is for the check when it has been issued; the entry in the notes payable journal is for the four notes; and the entry in the general journal is for (a) the mortgage note and (b) the stock issued to the partners. Parker & Thompson, Vendors, are debited in the entry in the vouchers payable journal, and Vouchers Payable debited in the entry in the cash disbursements journal. Parker & Thompson, Vendors, are debited and Unissued Capital Stock—Common and Unissued Capital Stock—Preferred credited in the general journal entry. If certificates of stock are issued, the accounts in the stock ledger may be opened from the information on the stub of the certificate. If they are not issued, the entry in the general journal should be sufficient to provide the information for the posting to the stock ledger, or a special memorandum entry made. Stock is issued to each partner for the purchase price of his interest in the partnership.

Opening Accounts in the General Ledger and Posting

The student should open the accounts in the general ledger listed in the outline on page 674, allowing the space indicated by the number at the right of the name, and post the opening entries. These include entries in the subscribers ledger and stock ledger as well as posting to the accounts in the general ledger. Allow six lines for each account in the subscribers ledger and the following space for accounts in the stock ledger: A. J. Black, M. E. McMahon and D. O. Conner, Sr., each eight lines; J. A. Parker, fifteen lines; all others, four lines. The space indicated is in addition to the lines used for the name of the account. These ledgers are discussed on pages 565 and 568.

Opening Accounts in the Accounts Receivable Ledger

Attached to the financial statement of Parker & Thompson was a schedule of accounts receivable as follows:

Allen Drug Company, 9th and Main . .	$ 87.50
American Cafe, 125 Main St.	165.50
S. M. Black, Maryville	1,510.00
Castle Hotel, 618 16th St.	217.00
College Inn, 532 University Ave.	27.50
Cox Drug Store, Valley Junction	50.35
Jackson Hotel, 345 W. 3rd St.	70.00
Jenkins Brothers, Maryville	1,468.30
Lake View Pharmacy, 2176 Lake Ave. . .	206.20
Meisner & Meisner, Benwood	840.00
W. E. Mitchell, 430 Walnut St.	214.50
Morgan's, 426 W. 4th St.	19.00
Scott & Lanning, Clinton	1,226.15
Total	$6,102.00

Open an account with each customer in the accounts receivable ledger; the space required for each account in addition to the lines used for the name of the account is indicated on page 677. Since the accounts are to be arranged in the ledger in alphabetical order, it will be necessary to allow space for the accounts not opened at this time.

Preparing Vouchers for the Accounts Payable

Attached to the financial statement of Parker & Thompson was a schedule of accounts payable as follows:

Arctic Ice Co., 192 First St.	$2,150.00
Johnson Dairy Co., Englewood	49.00
Lake View Dairy, 456 Market St. . . .	560.28
South Side Ice Co., 40 W. 2nd St. . . .	540.72
Total	$3,300.00

Accounts are not usually opened with each individual or firm when the voucher system is used as explained in Chapter XLV. Issue a voucher for each of the four personal accounts assumed by the corporation and record in the voucher register as Nos. 2, 3, 4 and 5. If blank vouchers are provided with the practice material, the information for each voucher should be "Amount due by Parker & Thompson as per financial statement."

The foregoing instructions complete the information necessary in connection with the opening of the books for the Superior Ice Cream Company and the entries necessary to transfer all the assets and liabilities of Parker & Thompson. When these instructions have been completed the student is ready to proceed with recording the transactions outlined on the following pages.

July 11

R. W. Boyd, 609 Market St., subscribed for six shares common stock. Received his check for $300.00, in payment of the first installment of fifty per cent. Payment of the balance is subject to the call of the board of directors the same as other stock that has been issued.

Enter in the general journal; the explanation should show the information to be posted to the subscribers ledger. Enter the check in the "General Ledger" column in the cash receipts journal.

Bought from the Remington Typewriter Company a new typewriter for $110.00; gave in payment an old typewriter valued at $55.00 and our Check No. 2 on the First National Bank for $55.00.

Issue Voucher No. 6 and record in the voucher register; debit Office Equipment in the "Sundry Accounts" column in the voucher register for the value of the new typewriter. Debit Vouchers Payable and credit Office Equipment in the general journal for the value of the old typewriter. Enter the check in the "Vouchers Payable" column in the cash disbursements journal.

Sales on account for the day as follows:

American Cafe, 125 Main St.	Ice Cream	$ 17.00
Jackson Hotel, 345 W. Third St.	" "	22.00
Castle Hotel, 618 16th St.	" "	23.00
Lake View Pharmacy, 2176 Lake Ave.	" "	27.00
	Merchandise	12.75
Lake Side Park Co., Lake Side Park	Ice Cream	57.00
	Ice	1.50
Jones Company, 610 Plum St.	Ice Cream	16.50
Meisner & Meisner, Benwood	" "	119.00

In practice, the entries in the accounts receivable ledger are usually made direct from the carbon copies of the invoices and duplicate invoices are filed as the sales book record. In this set the original entries for sales will be made in the sales journal described on page 636, and the entry in the individual accounts posted from this record.

Cash sales for the day: ice cream, $27.50.

Enter in the "Ice Cream Sales" column in the cash receipts journal.

Deposited the cash received today ($327.50) in the First National Bank.

July 12

Issued vouchers for the following purchases:

American Printing Co., Commercial Tribune Bldg., account; stationery, books and supplies, $123.35.

Steubing Truck Co., 18 Front St., 3/10, n/30; trucks, $87.00.

Lake View Dairy, 456 Market St., account; milk, $152.00.

Landis & Co., Morristown, 2/10, n/30; sugar and other raw materials, $920.00.

Arctic Ice Co., 192 1st St., account; ice, $17.38.

Debit Administrative Expenses for the first invoice, Machinery and Factory Equipment for the second invoice, Raw Material for the third and fourth invoices, and Ice for the fifth invoice. The second entry is made in the "Sundry Accounts" column and the other four in the special columns provided in the voucher register. Milk, sugar, eggs, flavoring, etc., constitute raw materials used in the manufacture of ice cream. Ice is purchased for resale and the packing of ice cream, but is not regarded as one of the raw materials which enter into the manufacture of ice cream, hence the cost is entered in a special account. When a purchase is subject to discount, a voucher is made for the full amount of the bill and the terms indicated for information when a check is issued in payment. When a remittance is made, the full amount of the voucher paid is entered in the "Vouchers Payable" column and the discount in the "Purchases Discount" column in the cash disbursements journal. The date of payment, check number and name of the bank on which it is drawn are indicated in the "When and How Paid" column in the voucher register.

July 13

J. H. Rainsberger, 301 Central Ave., subscribed for twelve shares common stock. Received his check for $600.00, in payment of the first installment of fifty per cent. Payment of the balance is subject to the call of the board of directors.

Sales on account for the day as follows:

S. M. Black, Maryville	Ice Cream	$184.00
West Side Drug Store, West Side	" "	16.50
	Merchandise	2.85
Star Cafeteria, 400 E. Fifth St.	Ice Cream	27.50
	Ice	1.00
Allen Drug Co., 9th and Main	Ice Cream	47.00
Morris & Morris, 2215 Burnet Ave.	" "	49.50
Jenkins Brothers, Maryville	" "	299.00
	Merchandise	16.75

Cash sales for the day: ice cream, $66.00.

Received checks from customers as follows: Allen Drug Co., $87.50; Castle Hotel, $200.00; Jackson Hotel, $50.00; Jenkins Brothers, $1,000.00. Enter in the "Accounts Receivable" column in the cash receipts journal.

Deposited the cash received today ($2,003.50) in the First National Bank.

July 15

Received the following subscriptions to common stock:

G. Justus, 1121 Sherman Ave.	6 shares
C. E. Buchanan, 1012 Jones St.	4 shares
H. G. Booth, 1057 Flint St.	10 shares
G. F. Cooper, 935 Laurel St.	7 shares

Received a check from each for one-half of the par value.

Issued a voucher and withdrew from the First National Bank by our Check No. 3 $25.00, to be used as a petty cash fund. Debit Petty Cash in the cash disbursements journal and enter in the "Receipts" column in the petty cash book.

Issued a voucher for the following purchase on account:

Arctic Ice Co., 192 First St.; ice delivered today, $24.00.

Mr. Thompson has opened an account with the Farmers Trust Company and deposited the cash received today ($1,350.00) in this bank.

Enter in the "Farmers Trust Company" column in the cash receipts journal in the manner in which other deposits were entered.

Issued a voucher for $632.75, pay roll to date, distributed as follows: Direct Labor, $278.00; Indirect Labor, $110.25; Administrative Expenses, $62.00; Delivery Expenses, $142.50; Selling

Expenses, $40.00. Withdrew from the Farmers Trust Company by our Check No. 1 a sufficient amount to pay this pay roll.

Enter the voucher in the voucher register and the check in the cash disbursements journal. Special columns are provided in the voucher register for the distribution of the pay roll. Employes of the corporation, except the officials, are paid on the 1st and 15th of each month; the officials will receive checks for their salaries on the last day of each month.

July 16

John Smith, 291 Grandin Road, subscribed for five shares common stock. Received his check for $250.00, in payment of the first installment of fifty per cent.

Issued a voucher for the following purchase:

Greenwood & Son, 1016 Woodward Ave., 3/10, 2/30, n/60; extracts, flavoring, and other raw materials, $750.00.

Sales on account for the day as follows:

Robey & Son, 1615 Woodburn Ave	Ice Cream	$ 22.00
	Merchandise	1.87
Morris & Morris, 2215 Burnet Ave	Ice Cream	16.50
Cox Drug Store, Valley Junction	" "	22.00
Engleman's Delicatessen, 1465 Curtiss St.	" "	11.00
	Ice	.50
W. E. Mitchell, 430 Walnut	Ice Cream	33.00
R. G. Thorley & Son, 818 Elm St	" "	22.00
	Merchandise	6.75
Cooper & Cooper, 721 Broad St	Ice Cream	24.50
Allen Drug Co., 9th and Main	" "	23.00
Morgan's, 426 W. 4th St	" "	33.00
	Ice	1.00
Peterson's Confectionery, 1400 W. 12th St.	Ice Cream	11.00

Deposited the cash received today ($250.00) in the First National Bank.

July 17

R. H. Blackburn, 268 McMillan St., subscribed for fifty shares preferred stock. Received his check for $2,500.00, in payment of the first installment of fifty per cent. Payment of the balance is subject to the call of the board of directors in the same manner as common stock.

Paid $10.00 from the petty cash fund for stamps to be used in the office and the sales department.

Enter in the petty cash book; divide the charge equally between Administrative Expenses and Selling Expenses. No voucher is required for a payment from the petty cash fund, as a voucher is issued for the entire fund when it is withdrawn from the bank.

Issued vouchers for the following purchases on account:

D. Smithland, Dayton; milk, $60.80.

Arctic Ice Co., 192 First St.; ice, $34.21.

Sales on account for the day as follows:

Star Cafeteria, 400 E. Fifth St.	Ice Cream	$ 22.00
Olson's Restaurant, Central R. R. Station	" "	22.00
S. M. Black, Maryville	" "	204.00
	Ice	3.00
	Cones	10.50
Jenkins Brothers, Maryville	Ice Cream	230.00
Scott & Lanning, Clinton	" "	115.00
North Side Boat Club, North Side	" "	66.00
	Merchandise	7.35
Jones Company, 610 Plum St.	Ice Cream	55.00
Cline's Restaurant, 1018 Walnut St.	" "	44.00

Note—Ice cream cones are not a part of the manufactured ice cream and their cost is charged to the Merchandise Purchases account, hence amounts received through the sale of these are entered in the "Merchandise Sales" column in the sales journal.

Cash sales for the day: ice cream, $112.00.

Deposited the cash received today ($2,612.00) in the First National Bank.

July 18

Paid $2.15 from the petty cash fund for pens and ink.

Issued credit bill to S. M. Black for $11.00, value of ice cream returned. Enter in the sales returns journal.

Issued a voucher for $18.00 in favor of the Motor Service Co., for repairs on delivery truck as per bill rendered. Paid this voucher by Check No. 2 on the Farmers Trust Company.

Issued vouchers for the following purchases on account:

Landis & Co., Morristown; merchandise, $78.50; raw materials, $160.00; total, $238.50.

Johnson Dairy Co., Englewood; milk, $60.80.

Issued a voucher for $11.85 in favor of the C. & N. W. Ry. Co., for freight on raw materials purchased. Paid this voucher by Check No. 4 on the First National Bank.

Debit Freight In in the entry in the voucher register.

Sales on account for the day as follows:

S. M. Black, Maryville	Ice Cream	$225.00
College Inn, 532 University Ave	" "	22.00
Jenkins Brothers, Maryville	" "	257.50
Lake Side Park Co., Lake Side Park	" "	66.00
	Merchandise	12.60
	Ice	10.50
Cline's Restaurant, 1018 Walnut St	Ice Cream	92.50

Cash sales for the day: ice cream, $126.50.

Deposited the cash received today ($126.50) in the Farmers Trust Company.

July 19

Issued credit bill to Jenkins Brothers for $22.00, value of ice cream returned.

Issued vouchers for the following purchases on account:

Blue Valley Creamery, Blue Valley; milk, $1,500.00.

Arctic Ice Co., 192 First St.; ice, $63.20.

Received the following subscriptions for common stock:

C. D. Norris, 101 W. Third St.	5 shares
E. F. Gregg, 1063 Rose St.	20 shares
J. E. Nixon, 917 Race St.	20 shares
Thomas Hover, 1019 Broadway	30 shares
George Musselmann, 301 Hunt St.	5 shares

Received a check from each for the first installment of fifty per cent.

Received checks from customers as follows: Scott & Lanning, $500.00; College Inn, $50.00; Lake Side Park Co., $47.00.

Received from S. M. Black check for $502.00 and note for $1,000.00, in payment of balance due July 10th. This note is in favor of S. M. Black, dated June 1st, due in 60 days, with interest at 6% from date, signed by J. M. Walker, of Dayton, and endorsed by Mr. Black. It is accepted at its present value, which is the face plus interest to date.

Enter the check in the cash receipts journal and the note and interest in the notes receivable journal.

Deposited $500.00 in the Farmers Trust Company and the balance of the cash received today ($4,599.00) in the First National Bank.

July 20

Paid $1.00 from the petty cash fund for carbon paper.

Received $50.00 from Morris & Morris to apply on account.

Issued a voucher for $115.68 for an office desk purchased from the Empire Furniture Co., 1301 Mitchell Ave. Paid from the petty cash fund $4.26 express on the desk.

The invoice for the value of the desk is entered in the voucher register. Charge the express to the cost of the desk in the petty cash book.

Sales on account for the day as follows:

Scott & Lanning, Clinton	Ice Cream	$160.00
Morgan's, 426 W. 4th St	" "	23.00
Cooper & Cooper, 721 Broad St	" "	24.00
	Ice	2.50
Meisner & Meisner, Benwood	Ice Cream	154.00
	Ice	5.00
W. E. Mitchell, 430 Walnut St	Ice Cream	27.50
R. G. Thorley & Son, 818 Elm St	" "	182.50
	Merchandise	47.50
Robey & Son, 1615 Woodburn Ave	Ice Cream	82.50
	Merchandise	12.65

Cash sales for the day: ice cream, $112.50.

Deposited the cash received today ($162.50) in the Farmers Trust Company.

July 22

Issued vouchers for the following purchases on account:

South Side Ice Co., 40 W. Second St.; ice, $26.50.

Arctic Ice Co., 192 First St.; ice, $47.38.

Received the following subscriptions for preferred stock:

J. A. Everhart, 1012 Eastern Ave.	25 shares
D. O. Conner, Sr., 112 Clifton Ave.	10 shares
D. O. Conner, Jr., 112 Clifton Ave.	5 shares

Received a check from Everhart for $1,250.00, and D. O. Conner, Sr., for $750.00, in payment for the first installment of fifty per cent. of each subscription.

Issued Check No. 5 on the First National Bank in favor of the American Printing Co., in payment of Voucher No. 7; Check No. 6 in favor of Landis & Co., in payment of Voucher No. 10, less discount; and Check No. 7 in favor of the Steubing Truck Co., in payment of Voucher No. 8, less discount, per terms of the invoices.

The amount of the voucher is entered in the "Vouchers Payable" column in the cash disbursements journal, and the discount in the "Purchases Discount" column on the same line.

Sales on account for the day as follows:

Jenkins Brothers, Maryville	Ice Cream	$350.00
Scott & Lanning, Clinton	" "	230.00
Meisner & Meisner, Benwood	" "	115.00
	Merchandise	37.50

Cash sales for the day: ice cream, $49.50.

Deposited the cash received today ($2,049.50) in the Farmers Trust Company.

July 23

Issued credit bill to Jenkins Brothers for $16.00, value of ice cream returned.

Issued vouchers for the following purchases:

Lake View Dairy, 456 Market St., account; milk, $91.20.

Altman & Co., Greenwood, July 20th, 3/10, n/30; cartons for brick ice cream, $20.00.

South Side Bakery Co., South Side, account; ice cream cones, $47.50.

Debit Raw Material for the second purchase and Merchandise Purchases for the third.

Paid from the petty cash fund $4.42 express charges on shipment of raw materials. Debit Freight In.

Sales on account for the day as follows:

S. M. Black, Maryville	Ice Cream	$242.00
Cox Drug Store, Valley Junction	" "	27.50
Morris & Morris, 2215 Burnet Ave.	" "	22.00
Robey & Son, 1615 Woodburn Ave.	" "	28.50
Star Cafeteria, 400 E. Fifth St.	" "	35.00
Cline's Restaurant, 1018 Walnut St.	" "	79.50

Cash sales for the day: ice cream, $26.90.

Issued a voucher for $21.83, amount expended from the petty cash fund as per the record in the petty cash book. Withdrew this amount from the First National Bank by Check No. 8 to replenish the petty cash fund.

Deposited the cash received today ($26.90) in the Farmers Trust Company.

July 24

Paid $2.65 from the petty cash fund for telegrams.

Received the following subscriptions for stock:

G. A. Vanderberg, 838 Reading Road	20 shares common
J. R. Davis, Columbus	15 shares common
Charles Smith, Pittsburgh	100 shares preferred

Received a check from each in payment for the first installment of fifty per cent.

Issued a voucher for $18.50 in favor of the South Side Ice Co., 40 W. Second St., for ice delivered to date as per tickets O. K.'d by the foreman.

Sales on account for the day as follows:

Jones Company, 610 Plum St.	Ice Cream	$ 49.50
	Cones	12.00
Excelsior Candy Co., 902 Locust St.	Ice Cream	27.50
Lake Side Park Co., Lake Side Park	" "	68.00
Castle Hotel, 618 16th St.	" "	35.00

Cash sales for the day: ice cream, $11.00.

Deposited the cash received today ($6,761.00) in the First National Bank.

July 25

Received from Meisner & Meisner a note for $500.00, signed by C. R. Carter, dated July 13th, and due in 60 days. This note is accepted to apply on account less interest at 6% to maturity.

Sales on account for the day as follows:

Jenkins Brothers, Maryville	Ice Cream	$225.50
	Ice	3.50
Scott & Lanning, Clinton	Ice Cream	136.00
American Cafe, 125 Main St.	Merchandise	12.75

Charles Smith reported that he would be out of town for about thirty days, and, in anticipation of the call of the board of directors, he gave his note for $2,500.00, dated today, due in 30 days, with interest at 6%, in payment for the second installment of 25% on stock subscribed.

Sent the note signed by J. M. Walker to the First National Bank at Dayton for collection and remittance.

When a note is sent for collection the endorsement of the payee is qualified by writing "For collection" above it. Since the auditor will expect to find a note in the safe for each unpaid note recorded in the notes receivable journal, a notation of the fact that it has been sent for collection should be made in the "Remarks" column of the notes receivable journal.

Cash sales for the day: ice cream, $23.50.

Deposited the cash received today ($23.50) in the Farmers Trust Company.

July 26

Issued vouchers for the following purchases on account:

Johnson Dairy Co., Englewood; milk, $86.50.

Arctic Ice Co., 192 First St.; ice, $12.00.

Received checks from customers as follows: S. M. Black, $450.00; Jackson Hotel, $50.00; Morris & Morris, $38.00.

Paid 75 cents from the petty cash fund to the truck driver for his dinner on a more than ordinarily long trip.

The Lake Side Park Co. returned part of the ice cream sold them on the 24th because it was received in bad condition, due to leaking cans. Issued a credit bill in their favor for $13.20, value of this cream. Debit Ice Cream Sales Allowances in the general journal.

Issued our Check No. 9 on the First National Bank in favor of Greenwood & Son, in payment of Voucher No. 15, less discount as per terms.

Sales on account for the day as follows:

Meisner & Meisner, Benwood	Ice Cream	$ 85.00
S. M. Black, Maryville	" "	204.00
American Cafe, 125 Main St	" "	34.00
	Ice	2.00
Lake View Pharmacy, 2176 Lake Ave	Ice Cream	22.00
Jenkins Brothers, Maryville	" "	234.00

Cash sales for the day: ice cream, $62.50.

Deposited the cash received today ($600.50) in the Farmers Trust Company.

July 27

Issued vouchers for the following purchases:

D. Smithland, Dayton, account; milk, $84.00.

Altman & Co., Greenwood, 3/10, n/30; cartons for brick ice cream, $60.00.

Alfalfa Creamery Co., 404 Main St., account; milk, $520.00.

Issued a voucher for $6.58 in favor of the American Express Co., for express charges on cartons. Paid this voucher by Check No. 10 on the First National Bank.

Debit Freight In for the amount of the voucher.

Sales on account for the day as follows:

Jones Company, 610 Plum St.	Ice Cream	$ 18.00
	Ice	1.50
American Cafe, 125 Main St.	Ice Cream	16.50
Jackson Hotel, 345 W. Third St.	" "	45.00
Lake Side Park Co., Lake Side Park	" "	82.00
Cline's Restaurant, 1018 Walnut St.	" "	71.50
	Cones	11.00
North Side Boat Club, North Side	Ice Cream	34.00
	Merchandise	8.75
Jenkins Brothers, Maryville	Ice Cream	280.00
	1-qt. Paper Pails	8.00
	Ice	2.50

Cash sales for the day: ice cream, $137.50.

Deposited the cash received today ($137.50) in the Farmers Trust Company.

July 29

Received credit bill from Landis & Co. for $12.50, to correct error due to shortage in shipment of raw materials received from them as per purchase invoice of July 18.

Enter in the general journal; debit Vouchers Payable.

Issued a voucher for $31.50 in favor of the Arctic Ice Co., 192 First St., for ice purchased on account as per invoice.

Sales on account for the day as follows:

Meisner & Meisner, Benwood	Ice Cream	$115.00
S. M. Black, Maryville	" "	225.00
College Inn, 532 University Ave.	" "	22.50
Star Cafeteria, 400 E. Fifth St.	" "	27.50
	Merchandise	6.50
Morgan's, 426 W. 4th St.	Ice Cream	33.00
Castle Hotel, 618 16th St.	" "	44.00

Issued a voucher for $250.00 in favor of the Daily News, for advertising bill rendered today. Paid this voucher by Check No. 11 on the First National Bank.

Debit Advertising for the amount of the voucher.

Cash sales for the day: ice cream, $170.50.

Deposited the cash received today ($170.50) in the Farmers Trust Company.

July 30

Issued Check No. 12 on the First National Bank in favor of Landis & Co., in payment of Voucher No. 19, less the credit for shortage per credit bill received on the 29th.

Issued a voucher for $27.00 in favor of the South Side Ice Co., 40 W. Second St., for ice purchased on account per invoice of this date.

Sales on account for the day as follows:

Excelsior Candy Co., 902 Locust St.	Ice Cream	$ 23.00
Cline's Restaurant, 1018 Walnut St.	" "	56.00
	Merchandise	17.50
S. M. Black, Maryville	Ice Cream	275.00
	Ice	5.00
Jenkins Brothers, Maryville	Ice Cream	245.00
	Ice	2.50
Jones Company, 610 Plum St.	Ice Cream	5.50

Cash sales for the day: ice cream, $33.50.

Deposited the cash received today ($33.50) in the Farmers Trust Company.

July 31

Issued Check No. 13 on the First National Bank in favor of the Blue Valley Creamery, in payment for Voucher No. 22, and Check No. 14 in favor of Altman & Co., in payment for Voucher No. 28, less discount as per terms of the invoice.

Issued credit bill to Cline's Restaurant for $11.00, value of ice cream returned.

Received checks from customers as follows: Star Cafeteria, $85.50; Robey & Son, $147.52; Engleman's Delicatessen, $11.50; West Side Drug Store, $19.35.

Gave the Arctic Ice Co. our note for $2,000.00, due in 30 days from date, with interest at 6%, to apply on balance due July 10th.

Enter in the "Vouchers Payable" column in the notes payable journal.

Issued a voucher for $1,000.00 for the following salaries of officers: George Rooney, $400.00; M. E. McMahon, $300.00; H. D. Thompson, $300.00. Paid this voucher by Checks Nos. 15, 16 and 17 on the First National Bank.

Debit Officers Salaries for the amount of the voucher.

Sales on account for the day as follows:

Castle Hotel, 618 16th St.	Ice Cream	$ 30.00
American Cafe, 125 Main St.	" "	16.50
S. M. Black, Maryville	" "	157.50
	Ice	4.50
Allen Drug Co., 9th and Main	Ice Cream	34.50
	Merchandise	3.50
	Ice	2.50
W. E. Mitchell	Ice Cream	22.00

Cash sales for the day: ice cream, $121.00.

Deposited the cash received today ($384.87) in the Farmers Trust Company.

Instructions: 1. Prove cash (balance in First National Bank, $20,350.50; balance in Farmers Trust Company, $4,915.02).

2. Foot and rule the books of original entry and post all entries, including the totals of the special columns.

3. Take a Trial Balance of the general ledger.

4. Prepare a list of the customers, showing the amount due from each as shown by the accounts receivable ledger, and prove the total by comparing it with the balance of the controlling account in the general ledger.

5. Prepare a list of the unpaid vouchers as shown by the voucher register, and prove the total by comparing it with the balance of the Vouchers Payable account in the general ledger.

6. Prepare a list of the subscribers, showing the amount due from each as shown by the subscribers ledger, and prove the total by comparing it with the balance of the Subscribers accounts in the general ledger.

TRANSACTIONS FOR AUGUST

August 1

Issued a voucher for $1,566.25, pay roll to date, distributed as follows: Direct Labor, $343.45; Indirect Labor, $225.00; Administrative Expenses, $724.00; Delivery Expenses, $161.30; Selling Expenses, $112.50. Withdrew from the Farmers Trust Company by our Check No. 3 a sufficient amount to pay this pay roll.

Sales on account for the day as follows:

College Inn, 532 University Ave	Ice Cream	$ 16.50
S. M. Black, Maryville	" "	170.00
	Ice	4.00
	Merchandise	13.75
Meisner & Meisner, Benwood	Ice Cream	234.50
Morgan's, 426 W. 4th St	" "	28.00
Scott & Lanning, Clinton	" "	347.50
	Ice	3.50

Cash sales for the day: ice cream, $247.50.

Deposited the cash received today ($247.50) in the First National Bank.

August 2

Issued Check No. 18 on the First National Bank in favor of Johnson Dairy Co. in payment of Vouchers Nos. 3, 20 and 32; Check No. 19 in favor of Arctic Ice Co. in payment of Vouchers Nos. 11, 13, 17, 23, 26, 33 and 38, and balance due on Voucher No. 2; Check No. 20 in favor of South Side Ice Co. in payment of Vouchers Nos. 5, 25, 31 and 40; and Check No. 21 in favor of the Alfalfa Creamery Co. in payment of Voucher No. 36.

Sales on account for the day as follows:

Morris & Morris, 2215 Burnet Ave	Ice Cream	$ 57.50
	Merchandise	6.25
Cooper & Cooper, 721 Broad St	Ice Cream	407.00
Meisner & Meisner, Benwood	" "	82.50
S. M. Black, Maryville	" "	37.50

Cash sales for the day: ice cream, $55.00.

Received checks from the following on account: North Side Boat Club, $116.10; Excelsior Candy Co., $50.50; R. G. Thorley & Son, $258.75; Star Cafeteria, $34.00; Jones Company, $158.00; Lake Side Park Co., $200.00; Meisner & Meisner, $900.00.

Deposited $1,500.00 in the Farmers Trust Company and the balance of the cash received today ($272.35) in the First National Bank.

August 3

The board of directors has issued a call for the second installment of 25% of the purchase price of common and preferred stock subscribed, payable August 10.

The only entry needed is a memorandum in the general journal. In practice this is not essential as full information in regard to the call would be on file in the carbon copies of the letters sent subscribers.

Sales on account for the day as follows:

Jenkins Brothers, Maryville	Ice Cream	$360.00
	Ice	7.50
College Inn, 532 University Ave	Ice Cream	27.50

Cash sales for the day: ice cream, $220.00; merchandise, $42.50; ice, $8.25.

Issued vouchers for the following purchases on account:

Lake View Dairy, 456 Market St.; milk, $74.00.

Blue Valley Creamery, Blue Valley; milk, $208.00.

Deposited the cash received today ($270.75) in the First National Bank.

August 5

Paid from the petty cash fund as follows: Citizens Ice Co., ice, $4.00; American Express Co., express on shipment of ice cream, $2.50; stamps for use in office, $2.00; postal cards for use in selling department, $1.00.

Received checks from customers as follows: Allen Drug Co., $110.50; American Cafe, $264.25; S. M. Black, $1,000.00.

Sales on account for the day as follows:

W. E. Mitchell, 430 Walnut St	Ice Cream	$ 71.50
Peterson's Confectionery, 1400 W. 12th St.	" "	5.50
Jones Company, 610 Plum St	" "	165.00
S. M. Black, Maryville	" "	415.00
	Merchandise	17.40
	Ice	4.75

Cash sales for the day: ice cream, $225.00; merchandise, $25.50.

Deposited the cash received today ($1,625.25) in the First National Bank.

August 6

Issued vouchers for the following invoices:

Arctic Ice Co., 192 First St., account; ice, $22.50.

Greenwood & Son, 1016 Woodward Ave., 3/10, 2/30, n/60; raw materials, $50.00.

American Express Co., express on empty cans and pails returned to us, $22.38.

When our truck can not collect the empty containers, customers return them by express collect. The invoice from the American Express Co. is for express on these shipments to date. Debit Delivery Expenses.

Issued Check No. 4 on the Farmers Trust Company in favor of Altman & Co. in payment of Voucher No. 35, less discount.

Sales on account for the day as follows:

Allen Drug Co., 9th and Main	Ice Cream	$ 28.00
S. M. Black, Maryville	" "	340.00
	Ice	2.50
Meisner & Meisner, Benwood	Ice Cream	228.00
	Merchandise	12.50

Cash sales for the day: ice cream, $335.00; merchandise, $24.50.

Issued credit bills for ice cream returned as follows: S. M. Black, $22.00; W. E. Mitchell, $5.50.

Received $100.00 from J. A. Anderson for one share preferred stock.

Credit Unissued Capital Stock—Preferred in the cash receipts journal. No entry is made in the Subscribers to Preferred Stock account. Why?

Deposited the cash received today ($459.50) in the First National Bank.

August 7

Issued Check No. 22 on the First National Bank in payment of Voucher No. 24 and Check No. 23 in payment of Voucher No. 47.

Sales on account for the day as follows:

Star Cafeteria, 400 E. Fifth St	Ice Cream	$ 22.50
	Merchandise	5.50
Jenkins Brothers, Maryville	Ice Cream	500.00
	Ice	4.00
Robey & Son, 1615 Woodburn Ave	Ice Cream	85.00

Cash sales for the day: ice cream, $205.00; ice, $0.50; merchandise, $2.50.

Deposited the cash received today ($208.00) in the Farmers Trust Company.

August 8

Issued a voucher for $187.50 in favor of the City Service Company for electric power per bill rendered. Paid this voucher by Check No. 5 on the Farmers Trust Company.

Issued vouchers for the following purchases:

Blue Valley Creamery, Blue Valley, account; raw materials, $208.00.

Arctic Ice Co., 192 First St., account; ice, $26.60.

Mose & Lane, 26 Sycamore St., 2/10, n/30; merchandise, $110.20.

Sales on account for the day as follows:

Meisner & Meisner, Benwood	Ice Cream	$280.00
	Ice	2.00
Scott & Lanning, Clinton	Ice Cream	192.50

Cash sales for the day: ice cream, $126.50; merchandise, $0.75.

Deposited the cash received today ($127.25) in the First National Bank.

August 9

Issued a voucher for $5,025.00, amount of thirty-day note given J. A. Parker on July 10th and due today, and interest. Paid this voucher by Check No. 24 on the First National Bank.

Paid $5.00 from the petty cash fund for subscription to the Ice Cream Makers Journal. Debit Administrative Expenses.

Issued vouchers for the following invoices:

Scott & Scott, 51-63 Millsdale Ave., account; factory supplies, $15.20.

C., C. & L. R. R. Co., freight on raw materials, $2.35.

Sales on account for the day as follows:

Cox Drug Store, Valley Junction	Ice Cream	$ 38.50
	Merchandise	2.50
Scott & Lanning, Clinton	Ice Cream	142.50
	Ice	4.50

Cash sales for the day: ice cream, $148.00.

Deposited the cash received today ($148.00) in the First National Bank.

August 10

Received checks in payment of 25% of the stock subscribed as follows:

Common—

H. D. Thompson	$1,250.00	G. F. Cooper	$ 175.00
George Rooney	3,750.00	John Smith	125.00
M. E. McMahon	3,750.00	C. D. Norris	125.00
A. J. Black	375.00	E. F. Gregg	500.00
M. L. Johnson	250.00	J. E. Nixon	500.00
R. W. Boyd	150.00	Thomas Hover	750.00
J. H. Rainsberger	300.00	George Musselman	125.00
G. Justus	150.00	G. A. Vanderberg	500.00
C. E. Buchanan	100.00	J. R. Davis	375.00
H. G. Booth	250.00		

Preferred—

R. H. Blackburn	$1,250.00	D. O. Conner, Sr.	$ 250.00
J. A. Everhart	625.00	D. O. Conner, Jr.	125.00

Sales on account for the day as follows:

Robey & Son, 1615 Woodburn Ave	Ice Cream	$225.00
Morris & Morris, 2215 Burnet Ave	" "	230.00
Jones Company, 610 Plum St	" "	12.00

Cash sales for the day: ice cream, $434.50; merchandise, $2.10.

Deposited the cash received today ($16,186.60) in the Farmers Trust Company.

August 12

Paid 50 cents from the petty cash fund for messenger service.

Issued a credit bill to Robey & Son for $19.80, value of ice cream returned.

Sales on account for the day as follows:

S. M. Black, Maryville	Ice Cream	$346.50
Castle Hotel, 618 16th St	" "	22.00
Cooper & Cooper, 721 Broad St	" "	27.50
Scott & Lanning, Clinton	" "	458.50

Cash sales for the day: ice cream, $140.00.

Deposited the cash received today ($140.00) in the Farmers Trust Company.

August 13

J. A. Parker has agreed to accept payment of the $5,000.00 note due September 8th. Issued a voucher for $5,028.33, face of the note plus interest to date, and paid this voucher by Check No. 25 on the First National Bank.

Issued a voucher for $92.00 in favor of the Day Machine Works for repairs on machinery.

J. A. Parker has sold twenty shares of preferred stock to L. D. Nelson and presented Certificate No. 1, issued to him, in exchange for a new certificate and the proper transfer. Two new certificates have been issued, one to him for the stock which he now owns, and one to L. D. Nelson for the twenty shares he has purchased.

Note—If the stock certificates book is not provided, the student should study the transfer information that should be given in connection with the certificate of stock issued on transfer and make a memorandum entry in the general journal from which the desired accounts in the stock ledger may be opened.

Received checks from customers as follows: S. M. Black, $1,000.00; Castle Hotel, $49.00; College Inn, $36.50; Cox Drug Store, $140.85.

Paid Vouchers Nos. 16 and 34 by Check No. 26 and Voucher No. 29 by Check No. 27 on the First National Bank.

Sales on account for the day as follows:

Morgan's, 426 W. 4th St.	Ice Cream	$ 22.00
Engleman's Delicatessen, 1465 Curtiss St.	" "	81.00
	Merchandise	4.78

Cash sales for the day: ice cream, $115.00; merchandise, $7.64.

Deposited the cash received today ($1,348.99) in the First National Bank.

August 14

Issued a voucher for bill received from the American Printing Co. for the following: 5,000 each letter heads and envelopes for use in the office, $45.00; 5,000 circulars for advertising, $20.50.

Received a check for $375.00 from A. J. Black in payment of the balance due on stock purchased by him. Mr. Black has sold seven shares of his stock to L. B. Saunders and requested that two certificates be issued, one to him for the stock which he now owns and one to L. B. Saunders for the seven shares he has purchased.

Issued a voucher for $3,000.00 in favor of the Citizens Motor Car Co. for a Packard truck. Gave in payment of this voucher our Check No. 6 on the Farmers Trust Company for $1,000.00, our note for $1,000.00 due in thirty days with interest at 6% from date, and a used truck taken over from Parker & Thompson at a value of $1,000.00.

Issued vouchers for the following purchases on account:

Brown Hardware Co., 693 Warsaw Ave.; factory supplies, $16.20.

National Tire Co., 25 Court St.; spare tire for truck, $55.50.

South Side Ice Co., 40 W. Second St.; ice, $30.28.

D. Smithland, Dayton; milk, $140.73.

Blue Valley Creamery, Blue Valley; merchandise, $150.00.

Sales on account for the day as follows:

Peterson's Confectionery, 1400 W. 12th St.	Ice Cream	$ 27.50
	Ice	.75
Jenkins Brothers, Maryville	Ice Cream	512.25

Cash sales for the day: ice cream, $553.50; merchandise, $46.38; ice, $2.75.

Deposited the cash received today ($977.63) in the First National Bank.

August 15

Gave the Lake View Dairy our thirty-day note for $803.48, with interest at 6%, in payment of Vouchers Nos. 4, 9 and 27.

Sales on account for the day as follows:

M. L. Roberts, 218 Highland Ave	Ice Cream	$390.00
	Merchandise	16.21
Jenkins Brothers, Maryville	Ice Cream	225.00

Cash sales for the day: ice cream, $110.00.

Issued a voucher for $940.35, pay roll to date, distributed as follows: Direct Labor, $312.60; Indirect Labor, $225.00; Administrative Expenses, $138.00; Delivery Expenses, $142.25; Selling Expenses, $122.50. Withdrew from the Farmers Trust Company by our Check No. 7 a sufficient amount to pay this pay roll.

Deposited the cash received today ($110.00) in the First National Bank.

August 16

Received from the First National Bank at Dayton a check for $1,012.50 in payment for the note sent for collection July 25th, with interest from date to August 15th, date of collection.

Sales on account for the day as follows:

Scott & Lanning, Clinton.................	Ice Cream	$181.00
Cox Drug Store, Valley Junction..........	" "	22.00

Issued Check No. 28 on the First National Bank in payment of Voucher No. 46 less discount as per terms.

Cash sales for the day: ice cream, $110.00.

Deposited the cash received today ($1,122.50) in the Farmers Trust Co.

August 17

Issued vouchers for the following bills and invoices:

Western Insurance Co., premium on policy issued July 10th, $600.00, distributed as follows: building and machinery, $300.00; raw materials and finished product, $150.00; office equipment, $60.00; delivery equipment, $90.00.

South Side Ice Co., 40 W. Second St., account; ice, $41.20.

D. Smithland, Dayton, account; milk, $80.35.

Greenwood & Son, 1016 Woodward Ave., 3/10, 2/30, n/60; raw materials, $250.40.

C. B. Ry. Co., freight on raw materials purchased, $12.60.

Debit Insurance for the first invoice.

Sales on account for the day as follows:

Scott & Lanning, Clinton.................	Ice Cream	$188.50
M. L. Roberts, 218 Highland Ave..........	" "	417.50
	Merchandise ...	6.50
S. M. Black, Maryville....................	Ice Cream	220.00
West Side Drug Store, West Side..........	" "	33.00

Accepted from Cooper & Cooper on account their note for $400.00 dated July 5th and due in sixty days with interest at 6% from date.

Credit was allowed for the face of the note and the accrued interest.

Issued Check No. 8 on the Farmers Trust Company in payment of Voucher No. 51 less discount as per terms.

Cash sales for the day: ice cream, $115.00; merchandise, $4.25.

Deposited the cash received today ($119.25) in the Farmers Trust Company.

August 19

Issued vouchers for the following purchases on account:

Alfalfa Creamery Co., 404 Main St., milk per invoice of the 14th, $260.00; per invoice of the 16th, $339.12; per invoice of the 17th, $160.00.

National Supply Co., 14-18 Harrison Ave., merchandise per invoice of the 14th, $762.50; per invoice of the 15th, $113.50; raw materials per invoice of the 17th, $876.00.

One voucher is issued to each company for the three invoices.

Paid Vouchers Nos. 44 and 49 by Check No. 9 on the Farmers Trust Company; Vouchers Nos. 45 and 50 by Check No. 10, and Voucher No. 53 by Check No. 11.

Where two vouchers are made in favor of the same firm, one check may be issued in payment of both. In practice, when it is desired to file the canceled check with each voucher, separate checks would be written.

Issued credit bills for ice cream returned as follows: M. L. Roberts, $22.00; Cox Drug Store, $11.00; Scott & Lanning, $27.50.

August 20

It has been agreed to cancel the $500.00 due on the fourth installment of stock subscribed by G. A. Vanderberg and to issue to him a certificate for fifteen shares, the number for which he has paid.

The explanation of the entry in the general journal should provide information for the stock ledger posting if certificates of stock are not issued.

Payment is requested by the Daily News for advertising bill, $212.50, rendered today. Issued a voucher for this amount and paid same by Check No. 29 on the First National Bank.

Cash sales for the day: ice cream, $275.00; merchandise, $8.65.

Deposited the cash received today ($283.65) in the Farmers Trust Company.

August 21

Received from S. M. Black to apply on account note for $500.00 signed by him and due in thirty days with interest at 6% from date.

Paid George Thomas $2.00 from the petty cash fund for driving a truck part of the day as extra driver.

Left the note signed by Charles Smith, received July 3rd, with the First National Bank for collection.

Sales on account for the day as follows:

Jenkins Brothers, Maryville	Ice Cream	$450.00
M. L. Roberts, 218 Highland Ave	" "	357.50
	Merchandise	12.75
Excelsior Candy Co., 902 Locust St	Ice Cream	22.00

Cash sales for the day: ice cream, $88.50.

The board of directors has issued a call for the payment of the fourth installment on common stock on August 26th.

Deposited the cash received today ($88.50) in the Farmers Trust Company.

August 22

Accepted from R. H. Blackburn in payment of the last installment on preferred stock purchased by him, his note for $1,000.00 due in thirty days with interest at 6% from date, and his check for $250.00.

Received checks from customers as follows: Jackson Hotel, $37.00; Cline's Restaurant, $300.00; Cooper & Cooper, $51.00; Scott & Lanning, $1,867.15.

Issued vouchers for the following purchases on account:

Lake View Dairy, 456 Market St.; milk, $204.00.

Sanitary Creamery Co., 222 Dalton Ave.; milk and eggs, $2,436.25.

South Side Ice Co., 40 W. Second St.; ice, $127.38.

New York Bakery, 2361 Vine St.; merchandise, $97.23.

Borrowed from the Farmers Trust Company $5,000.00 on the corporation's note due in ninety days with interest at 6% from date.

Deposited the cash received today ($2,505.15) in the Farmers Trust Company.

August 23

J. A. Parker has sold twenty shares of preferred stock to J. A. Anderson and surrendered his Certificate No. 3 with authority to issue the new stock.

Sales on account for the day as follows:

American Cafe, 125 Main St.	Ice Cream	$ 22.00
Cooper & Cooper, 721 Broad St.	" "	12.00
Manning Manufacturing Co., 2628 Spring Grove Ave.	" "	275.00
M. L. Roberts, 218 Highland Ave.	" "	345.00
	Merchandise	14.85
	Ice	5.00

Issued a credit bill to M. L. Roberts for $27.50, value of ice cream returned.

August 24

Issued a voucher for $16,000.00 in favor of the Holmes Realty Co. for site for proposed power plant. Paid this voucher by Check No. 12 on the Farmers Trust Company for $10,000.00 and Check No. 30 on the First National Bank for $6,000.00.

Issued a voucher for $20.40 and withdrew from the First National Bank by Check No. 31 cash with which to renew the petty cash fund.

Issued vouchers for the following purchases on account:

Arctic Ice Co., 192 First St.; ice, $28.30.

D. Smithland, Dayton; milk, $87.50.

Foster & Co., 139 Hunt St.; stationery, $93.75.

Conklin Plumbing Co., 800 Mitchell Ave.; repairs on plumbing in factory, $114.27.

Sales on account for the day as follows:

S. M. Black, Maryville	Ice Cream	$465.50
Palace Candy Co., 18 W. Sixth St.	" "	28.50
Scott & Lanning, Clinton	" "	275.00
New York Candy Co., 108 Pearl St.	" "	57.50

Cash sales for the day: ice cream, $220.00.

Accepted from George Rooney, in payment for the last installment on common stock subscribed by him, his check for $1,250.00 and his note for $2,500.00, due in thirty days with interest at 6% from date.

Deposited the cash received today ($1,470.00) in the Farmers Trust Company.

August 26

The First National Bank advises collection of the note signed by Charles Smith and left with it for collection August 21st. Our account has been credited with $2,512.50, face of the note and interest.

Issued a voucher in favor of the Midland Creamery Co., Reading, for $348.50, milk purchased on account.

Received checks from the following in payment of the last installment of 25% of the stock subscribed:

Common—

M. E. McMahon	$3,750.00	H. G. Booth	$ 250.00
M. L. Johnson	250.00	G. F. Cooper	175.00
R. W. Boyd	150.00	John Smith	125.00
J. H. Rainsberger	300.00	C. D. Norris	125.00
G. Justus	150.00	George Musselman	125.00
C. E. Buchanan	100.00	J. R. Davis	375.00

Preferred—

D. O. Conner, Sr.	$250.00	D. O. Conner, Jr.	$125.00

Issued certificates to each. C. D. Norris requests that two certificates be issued for his subscription, one to himself for three shares and one to his wife for two shares.

Sales on account for the day as follows:

Barnum & Co., W. 71st St.	Ice Cream	$275.00
Stewart & Stewart, 4348 Tower Ave.	" "	440.00
	Merchandise	14.87

Cash sales for the day: ice cream, $137.50.

Deposited the cash received today ($8,900.00) in the First National Bank.

August 27

Issued Checks Nos. 13, 14 and 15 on the Farmers Trust Company, in payment for Vouchers Nos. 56, 62 and 68 respectively. Deducted 3% discount as per terms on Voucher No. 68.

Issued a voucher in favor of J. A. Parker, for fifty shares of his preferred stock at par. Paid this voucher by Check No. 16 on the Farmers Trust Company. Mr. Parker has surrendered his stock certificate and received a new one for his net holdings as shown by his account in the stock ledger.

Debit Treasury Stock for the amount of the voucher.

Paid from the petty cash fund as follows: stamps for use in the selling department, $4.00; pens and pencils, $5.00.

August 28

Issued vouchers for the following purchases on account:

South Side Ice Co., 40 W. Second St.; ice, $17.54.

J. C. Ginville Company, 101 Ninth St.; advertising, $87.50.

Received checks from customers as follows: Lake View Pharmacy, \$206.20; Morgan's, \$109.00; Olson's Restaurant, \$22.00.

M. E. McMahon has sold ten shares of his common stock to W. O. Crosswhite, and D. O. Conner, Sr., five shares of his preferred stock to R. H. Blackburn.

Sales on account for the day as follows:

M. L. Roberts, 218 Highland Ave.	Ice Cream	\$495.00
Cummins & Co., 95 Delta Ave.	" "	113.50
S. M. Black, Maryville	" "	220.00
	Merchandise	28.50
Jackson Hotel, 345 W. Third St.	Ice Cream	24.00
	Ice	2.00

Cash sales for the day: ice cream, \$225.50; merchandise, \$16.25; ice, \$1.50.

Deposited the cash received today (\$580.45) in the First National Bank.

August 29

Received checks from customers as follows: W. E. Mitchell, \$63.00; Peterson's Confectionery, \$44.75; Castle Hotel, \$22.00.

Paid from the petty cash fund as follows: special delivery of ice, \$4.00; raw materials, \$2.50; stamps for office use, \$2.00; extra labor in unloading delivery, \$2.50.

Debit Selling Expenses for the last payment.

Deposited the cash received today (\$129.75) in the First National Bank.

August 30

Issued a voucher for \$29.50, traveling expenses of J. W. Jones, an employe in the selling department. Paid this voucher by Check No. 17 on the Farmers Trust Company.

Sales on account for the day as follows:

Peterson's Confectionery, 1400 W. 12th St.	Ice Cream	\$ 29.00
West Side Drug Store, West Side	" "	52.00
Jenkins Brothers, Maryville	" "	392.50
	Ice	2.50

Issued a voucher for \$2,010.00, amount of 30-day note given the Arctic Ice Co. on July 31st and due today, and interest. Paid this voucher by Check No. 32 on the First National Bank.

Cash sales for the day: ice cream, \$123.50.

Deposited the cash received today (\$123.50) in the First National Bank.

August 31

Issued a voucher for $20.00 and withdrew from the First National Bank by Check No. 33 cash with which to renew the petty cash fund.

Paid Voucher No. 71 by Check No. 18 on the Farmers Trust Company, and Voucher No. 74 by Check No. 19.

Sales on account for the day as follows:

Morgan's, 426 W. 4th St.	Ice Cream	$ 24.00
Scott & Lanning, Clinton	" "	330.00
S. M. Black, Maryville	" "	195.00

Issued a voucher for the following salaries of officers: George Rooney, $400.00; M. E. McMahon, $300.00; H. D. Thompson, $300.00. Paid this voucher by Checks Nos. 34, 35 and 36 on the First National Bank.

Instructions: 1. Prove cash (balance in First National Bank, $14,267.64; balance in Farmers Trust Company, $9,504.70).

2. Foot and rule the books of original entry and post all entries, including the totals of the special columns.

3. Take a Trial Balance of the general ledger.

4. The following adjustments are to be made:

(1) Reserve for Bad Debts 1% of Accounts Receivable.

(2) Depreciation on Fixed Assets: (a) buildings, $450.00; (b) machinery and factory equipment, $800.00; (c) delivery equipment, $186.00; (d) office equipment, $23.29.

(3) Accruals: (a) interest on notes receivable, $9.63; (b) interest on notes payable, $33.14; (c) interest on mortgage payable, $300.00; (d) unpaid pay roll: Direct Labor $312.60, Indirect Labor $225.00; Administrative Expenses $138.00, Delivery Expenses $142.25, Selling Expenses $122.50.

(4) Inventories: (a) Finished Goods, $1,549.57; (b) Merchandise, $415.25; (c) Raw Materials, $6,759.60.

(5) Deferred Charges: (a) office supplies on hand, $36.27; (b) factory supplies on hand, $12.00; (c) ice on hand, $25.70.

(6) Unexpired Insurance: (a) on factory and equipment, $250.00; (b) on raw materials and finished goods, $125.00; (c) on office equipment, $50.00; (d) on delivery equipment, $75.00.

5. Prepare a Working Sheet, Balance Sheet and Statement of Profit and Loss. A dividend of 2% is declared on preferred stock.

6. Make the journal entries necessary to give effect to the adjustments stated above and post the same.

7. Make the journal entries necessary to close the ledger accounts and post the same.

8. Make the post-closing entries and take a post-closing Trial Balance.

9. Prepare a list of the customers, showing the amount due from each as shown by the accounts receivable ledger, and prove the total by comparing it with the balance of the controlling account in the general ledger.

10. Prepare a list of the unpaid vouchers as shown by the voucher register, and prove the total by comparing it with the balance of the Vouchers Payable account in the general ledger.

11. The total number of gallons of ice cream sold during July and August was 23,009. Ascertain the cost per gallon.

CHAPTER XLIX

RELATION OF ACCOUNTING TO BUSINESS MANAGEMENT

Basis of Business Management

The business executive has under his management resources of various kinds. These resources may consist of land, buildings, machinery, labor, raw materials, and many other kinds of commodities or services. It is the function of the business administrator to direct and control the use of these resources to the end that they be employed most efficiently in the production of the commodity or service which the business offers for sale. Such control and direction can not be exercised in a rational way unless it be based upon accurate and comprehensive information. In fact, business control, and, hence, scientific administration, may be said to consist of the proper application of information correctly interpreted.

The information upon which business administration is based is of various kinds. It consists in part of technical knowledge which is obtained by formal training or experience, or preferably both. It consists in part of a knowledge of human phychology and the probable reaction of this phychology upon environmental conditions. It consists to a considerable extent of a knowledge of the current social, political and economic conditions under which the particular business must be administered. All this information, and much more, is necessary to serve as a basis of judgments and decisions. But in addition to all this information, there must be statistical data which will show the results of past decisions, and the probable result of present and future ones.

This statistical data may be obtained in various ways and in various forms. The data required is so varied in nature and must be obtained under such widely different conditions that arbitrary methods for its procurement can not be prescribed. However, experience has shown that in connection with every business there is certain statistical information of a more or less uniform nature that is required in its administration. It has also been found by experience that there are certain fairly uniform methods which can be used conveniently in securing this information, and, hence, the science of accounting has been developed. In this sense, accounting is merely a somewhat formal way of recording and presenting statistical data to make it available for managerial purposes. Its function, therefore, is to provide in part the information which serves as a basis of business management.

Nature of the Information Provided by Accounting

Accounting provides the method by which information with reference to the operations of a business is obtained. Business operations involve the use of property in the securing of income. The property or assets of a business are provided partly by the proprietors of the business and partly by its creditors. The claims of the creditors against the assets of the business give rise to its liabilities. Consequently, the assets of a business can not be considered independently of its liabilities. The proprietors of a business attempt to use its assets and to control its liabilities so as to earn an income. But in earning an income expenses are incurred. Consequently, the income and expenses of a business are so closely related that their joint consideration is necessary. Finally, the disposition of the net income, as well as the operations which result in this net income, are dependent on the proprietors in whom is vested the net worth of the business. Consequently, a discussion of the operations of a business involves some consideration of proprietorship.

In view of the foregoing discussion it may be stated that accounting provides a method for obtaining information of three kinds:

1. Information with reference to assets and liabilities.
2. Information with reference to income and expenses.
3. Information with reference to proprietorship.

Purpose of Accounting Statistics

Accounting provides a method of obtaining information which is widely varied and comprehensive. This information may show the result of past transactions, or it may show the anticipated result of future transactions. The purpose of such information is two-fold:

1. To show past results.
2. To serve as a basis for future plans.

The success of a business, as well as the efficiency of the individuals responsible for its management, can only be judged in terms of results. These results, from the viewpoint of business management, are expressed in terms of profit and loss. It is the function of accounting to make available information with reference to past operations which will make it possible to judge in terms of profit and loss the efficiency of those responsible for the management of a business. But the management can be efficient or at least achieve its greatest possible efficiency only in case these results are presented so that they can be used as a basis of future plans. The function of accounting, therefore, is not only to show the efficiency already gained, but also to promote and further it.

It may be well to emphasize that in the present and the remaining chapters of this text *accounting* is used in a broad sense to include all the means and methods, both formal and informal, by which statistical information with reference to a business is collected and made available for managerial uses. Under the old-established ideas of nomenclature, such a study probably would not be termed accounting in preference to statistics, but that is not a point which need cause the student any particular concern. Statistics is the technique of gathering, interpreting and presenting in intelligible form information which is capable of being expressed numerically. The term is quite inclusive, and, strictly speaking, accounting is merely a single phase of the employment of the statistical method. It may be desirable, as it probably is, to distinguish accounting from the general field of statistics. This distinction then may be found to exist in two respects: first, in the nature of the information dealt with, for while statistics include a great collection of facts, accounting includes only the organized records of the particular business enterprise; and second, in the method employed in classifying that information, for whereas statistics make use of various methods, such as tables, comparisons and graphs, accounting tends to classify the information with reference to the particular business enterprise by means of the *account* in the technical sense. It will appear, however, as the student proceeds in his investigations in the subject, that the reports prepared for the use of the various parties interested in the business are not all made up from information furnished by the accounts, so called, but in many cases are drawn from other kinds of records where the method of compiling the information is not peculiar to the field of accounting, but is such as is employed in other kinds of statistics. For purposes of this text, then, it is not necessary or desirable that the student should attempt to have a narrower concept of the field of accounting than that of the employment of reports as an aid to the conduct of business, and, incidentally, to the control and regulation by society of certain phases of private business enterprise.

Method by which Accounting and Statistical Data is Obtained

It is from accounting and statistical reports that the administrative agents of the business obtain the information which serves as the basis for the preparation and execution of their plans. But to have available the data which is required in the preparation of these reports, it is necessary to have records which serve to collect, classify and summarize accounting and statistical information. It is assumed that the student is familiar with the construction and use of the orthodox accounting records. In the following chapters the principal emphasis will be placed on the use of reports in business management. Some attention will be given to the records necessary for the procurement of the information contained in these reports. In the final chapters, the construction, organization and operation of statistical and accounting records for control will be discussed.

Nature of Reports Required

It may not be safe to proceed on the assumption that the student is clear as to the meaning of the word "Report" as here employed. As a matter of fact, it is used in no peculiar sense, except that a written report is contemplated rather than an oral one. By a report, as used in connection with business management, is meant merely a statement of certain facts regarding the business, or regarding plans contemplated in the conduct of the business. This statement shows such an analysis of the information presented as may seem desirable for the use of the party to whom the report is submitted, and is drawn in such form as seems most intelligible and enlightening. Such a report may be, for example, a statement of the financial condition of the business, as of a given date, submitted to the owners, to the creditors, or to a governmental agency; or it may be a statement submitted by a subordinate manager to the general manager of a company, setting forth his plans for the coming year, or a statement showing the results of the operations for which he is responsible during the past year.

Parties Interested in Accounting and Statistical Reports

It has been previously stated that business management is primarily a matter of control and that accounting should provide the information which will facilitate such control. But control can be exercised only through individuals or groups of individuals, and information can be of value only when it serves the needs of those engaged in management. In other words business management can be discussed only in terms of business organization.

Under present methods of business organization, the parties who exercise some influence in the administration of the typical business are quite numerous. The ultimate control of the business is vested in its owners. But in the modern corporate enterprise the control of the owners is exercised only indirectly. Most of their authority is delegated to a board of directors who in turn delegate a large part of their authority to the general officers of the corporation. The general officers in turn intrust the execution of the policies of the business to subordinates, and these subordinates employ assistants who direct the activities of workers. Such a form of organization may be illustrated graphically as in Illustration No. 79:

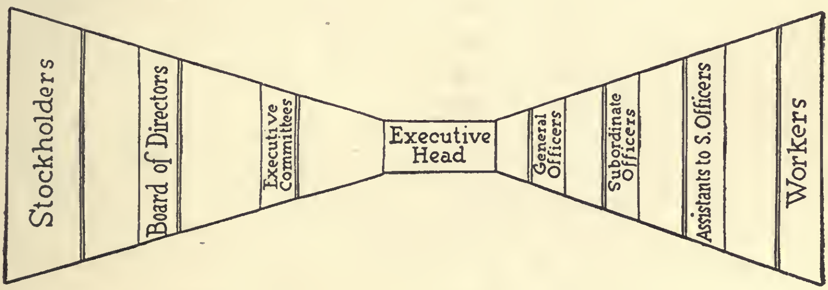

Illustration No. 79—Corporate Form of Organization

As indicated by the foregoing graph the stockholders, who may be quite numerous, select a board of directors which usually consists of from three to twenty-one members. The board of directors often selects a small committee, composed of from three to five members, which is termed the executive committee. This committee meets frequently and is responsible for deciding upon important questions which arise during the period which intervenes between one board meeting and another. The chief executive head of the business acts under the direct control of the executive committee and board of directors. He is responsible for the general administration of the business. In the case of a corporation, this executive is usually the president, although in some cases the president may be subordinate to the chairman of the board of directors when the latter assumes active executive duties. In a small business, the president may supervise and direct all of the administrative functions of the business. In a business of any considerable size, it is impossible for the executive head to direct, much less actually perform, the work necessary for its administration. Other officers must therefore be employed who will assist in the formulation and execution of the administrative policies of the business. A number of such officers may be employed, and the duties which they may perform will depend to a considerable extent on the nature of the operations and, consequently, on the functions of the business. The number and nature of such functions vary from business to business. There are certain functions, however, which are common to all businesses. In every mercantile and industrial business, at least, sales must be made; goods or services sold must be produced or purchased; plant and equipment which are necessary for carrying on these operations must be secured; their maintenance must be provided for; the funds necessary to finance these operations must be procured; and finally, the accounting and statistical information necessary to exercise control of all these operations must be obtained.

Since it is necessary that these functions be properly performed, officers should be appointed who are proficient in particular functions and responsibility be placed on them for the proper performance of these. In pursuance of this policy, the president or general manager may have subordinate to him and reporting to him:

1. A Sales Manager who is in charge of the marketing of the products or services upon whose sale the business depends for its chief revenue. The sales manager may also have subordinates, as, for example, one in charge of foreign sales and one in charge of domestic sales; and subordinate to, or coordinate with, him, there may be an advertising manager and his staff.

2. A Production Manager in a manufacturing business, who is responsible for supplying the product or service necessary to meet the demands of the customers. The purchasing of the materials used in production would be in charge of a general purchasing agent who might or might not be subordinate to the production manager, but who, in any case, must cooperate with him.

3. A Merchandise Manager in a trading business, who supervises the purchases of the goods to be sold. In a large business he would be assisted by various subordinates, including departmental buyers who are specialists in certain types of merchandise purchasing. In some mercantile establishments, the merchandise manager supervises both the purchasing and the selling of the firm's merchandise.

4. A Superintendent of Building and Maintenance, sometimes termed Plant Engineer, who is responsible for the maintenance of the present equipment and the construction and installation of new equipment. It is not possible entirely to centralize the control of equipment, since it is so vitally connected with the operations of several departments. The requisition for new equipment for manufacturing purposes may originate with the production department, and its construction may be carried on by this department. Other departments may originate requisitions for the purchase of equipment for their particular departments. It may not be feasible to have an executive who controls equipment, as the production manager controls production. It is possible, however, for the superintendent of plant and equipment to have general supervision and functional control of all plant and equipment.

5. A Financial Manager who is responsible for the formulation and execution of the financial policy of the business. Usually, he is not given final authority in cases of material importance. His function is to provide the information which will serve as a basis for formulating the financial policy of the business and for executing that policy after it is formulated. Subordinate to the financial manager, who is usually called the Treasurer, there may be a credit manager and a collection manager. In any case, there must be close cooperation between the financial manager and those who guard the credits of the firm.

6. A Controller who has supervision of the accounting records and the preparation of accounting and statistical reports, and is responsible for the interpretation of these reports and for the recommendation of methods and procedures based on this interpretation.

An organization such as is indicated by the foregoing discussion may be shown graphically in the form of Illustration No. 80.

The foregoing list of functional managers who assist the president or general manager in the formulation and execution of the policies of the business is intended to be suggestive rather than inclusive. The ones mentioned are those who are necessary to supervise and control the functions which are common to all businesses. In a small business the same manager may be responsible for two or more functions, but this does not destroy functional responsibility. It means only that this manager is acting in a dual capacity.

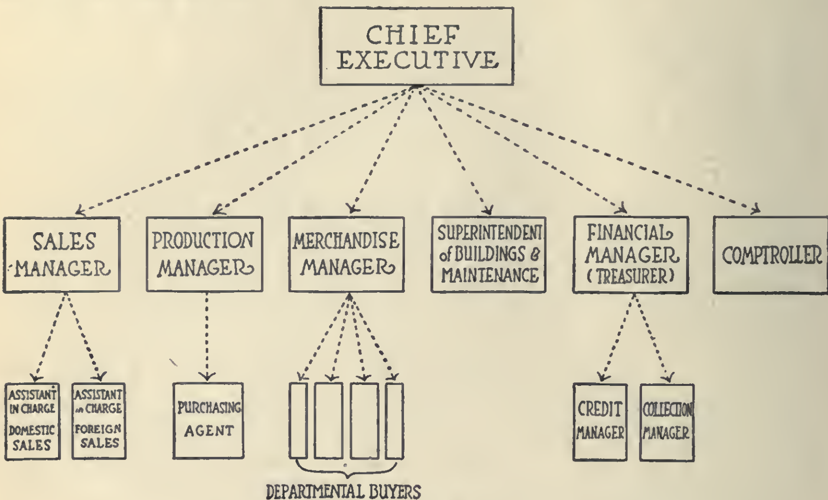

Illustration No. 80—Functional Form of Organization

In such an organization as that discussed and illustrated in the foregoing paragraphs, it is very essential if rational control is to be exercised that there be available information of three kinds:

1. Information which will serve as a basis for the formulation of the general policies of the business and for the delegation by each group of certain duties to the next subordinate group.

2. Information which will enable each group to perform properly the duties delegated to it and to coordinate its activities with those of all the other groups.

3. Information which will enable each manager to judge as to the efficiency with which the duties delegated by him have been performed by his subordinates.

It can be seen, therefore, that as business organization becomes more complex a demand for accurate information with reference to the operations of the business becomes more imperative.

In addition to those who are responsible for the management of the business, there are others who desire information with reference to it. Prospective creditors, both long-time and short-time, desire information which enables them to judge the advisability of entering into relations with the business. If they become creditors, and especially if they become long-time creditors, they will desire information which will show them how carefully their security is being maintained. Bondholders, for instance, will desire to know that the property which is pledged under the mortgage bond is being maintained in the proper condition. Governmental agencies desire information for purposes of taxation and control. The information which creditors and government agencies require is not very dissimilar to that required by the stockholder of the business, since usually the latter exercises only a passive control, the actual direction of the business being in the hands of the directors and the general officers. From the viewpoint of accounting, therefore, the stockholders may be classified with creditors and governmental agencies.

In view of the foregoing discussion, it should be apparent that if accounting is to serve as an aid in administration, it must provide the executive head of the business with information which will enable him to exercise proper control over relations of two kinds:

1. Relations with those who are external to the business, such as stockholders, creditors and governmental agencies.

2. Relations with those who are responsible for the internal management of the business. In every business there are certain functions to be performed and usually the supervision of each of these various functions is vested in a functional manager.

The various relations over which accounting provides a means of control may be shown in diagram form as in Illustration No. 81.

It is not intended to imply by this diagram that there is always a separate individual charged with the supervision of each class of operations indicated. However, from the viewpoint of administration, each of these classes of operations constitutes a distinct function.

Illustration No. 81—Diagram Showing Relation Over Which Accounting Provides a Means of Control

Classification of Reports Used in Administration

Based on the foregoing discussion and illustration, the reports needed in business administration may be classified as follows:

1. Reports showing present financial condition. The various forms of Balance Sheets are used for this purpose.

2. Reports showing the results of past operations. The various forms of expense and income analyses and Statements of Profit and Loss serve this purpose.

3. Reports showing certain pertinent information which is necessary for the daily actions of the executives and employees. Such reports may consist of a statement for the treasurer showing the accounts falling due on the current day; of a report to the collection manager showing accounts thirty, sixty and ninety days past due; of a report to the sales manager showing the slow-moving items of stock; and various other reports of a similar nature.

4. Reports showing anticipated results of future operations. Such reports include estimates of sales, estimates of purchases, estimates of production, and estimates of net profit to be obtained as a result of operations for a certain period of time. Such estimates serve as a basis of future plans.

Need for Estimates

The Balance Sheet shows the financial condition of a business as of a certain date. The Statement of Profit and Loss shows the results of the operations of a business for a certain period of time. This information is of primary value to the executive head of the business and those external to the administration of the business with whom he has business relations. Estimates show the anticipated result of future operations and are of primary value to the executive head of the business and those who are responsible for its internal administration.

It has long been regarded the function of accounting to prepare Balance Sheets and Statements of Profit and Loss which reflect the result of past operations. Many, however, will oppose the idea that it is the function of accounting to deal with estimates of the result of future operations. But if accounting is to serve as an aid in business control and administration, it must deal with future operations, for it is only future operations that are subject to control. To control future operations involves the making of plans and plans necessitate estimates of future results.

No doubt in the near future both business men and accountants will realize that all accounting reports are but estimates, and, though estimates of past results, such as the Balance Sheet and the Statement of Profit and Loss, may be more accurate, estimates of future results may be equally useful. It is not intended to imply that estimates of future results, such as estimates of sales, purchases and production, should be entered in the accounts. The information shown in the accounts, however, should serve as a basis for the preparation of such estimates, and it should serve as a means of checking the accuracy of the estimates since the actual results, as shown by the accounts at the end of the period, can be compared with the expected results, as shown by the estimates.

QUESTIONS FOR CLASS DISCUSSION

1

The Brown Steel Company has its general offices in New York. It has ten subsidiary companies operating in ten different states. What is necessary to enable the general manager at New York to exercise control over the operations of the subsidiary companies?

2

In what way has the development of large business organizations affected the problem of business control or management? Illustrate how this change in business management has affected the development and use of accounting.

3

What will be the probable tendency with reference to the need for and use of accounting in the future? Give illustrations to support your answer.

4

Large companies sell stocks and bonds in many markets and to many people. How do these purchasers determine the financial reliability of the firm issuing such stocks and bonds?

5

Explain and illustrate how the government may be interested in the affairs of the individual business. In what way does the government obtain the information it desires from such businesses?

6

Mr. King is President and General Manager of the King Automobile Company which manufactures and sells automobiles. The company has two factories and fifty sales offices. Mr. King desires to know daily the following:

(a) Machines produced at each factory.
(b) Total machines sold by all branches.
(c) Bank balance at each depository.
(d) Amount borrowed from each depository.

Explain how this information will be obtained for Mr. King.

Explain why each of these items of information is desired by Mr. King.

8

Assume you are an assistant to Mr. King and are responsible for the presentation of this information to him each day. Explain how you would present it to him so that it will be of most service to him

9

In order to have a basis for planning the sales campaign of the next year, Mr. King desires to know the following:

(a) The number of persons engaged in each profession and each line of business in each state in which the company has an agency.

(b) The number of persons in each state receiving a yearly income of $2,000.00 or above.

(c) The number of cars of the King Automobile Company which are sold in each state.

Explain the methods by which this information will be obtained for Mr. King.

10

Explain why each of the items of information called for in (9) is desired by Mr. King. Can you think of any other information which he might use in planning his sales campaign? If so, explain how it will be obtained.

11

Under what circumstances will information similar to that in (9) be of service with reference to states in which the company has no sales offices?

12

The King Automobile Company, after investigating the sales possibilities, has decided to open a sales office at Dallas, Texas. It has opened an account with the First National Bank of that city, and it desires to arrange to borrow funds from the bank as it needs them in the financing of its office. What information will the bank request from the company before agreeing to extend credit to it? How will this information be obtained and in what form will it be presented to the bank?

13

What other parties than the bank may desire the same information desired by the bank?

14

Explain the difference between the information called for in Questions (6), (9) and (12). To obtain which of these three kinds of information has accounting been most used in the past? Why?

15

The James Manufacturing Company manufactures machine tools. It sells these through ten district sales offices. It has three factories located at Boston, Philadelphia and Chicago, respectively. In addition to the sale of the tools which it manufactures, it buys and sells tools and equipment produced by other companies. Mr. A. L. James is President of the Company. State the officers which you think Mr. James needs to assist him in the management of the business and state in a general way the duties of each of these officers.

16

"As business organization becomes more complex a demand for accurate information with reference to the operations of the business becomes more imperative." Explain and illustrate.

17

The reports needed in business administration include those "showing certain pertinent information which is necessary for the daily actions of the executives and employees." Give illustrations of such reports.

18

"Estimates show the anticipated result of future operations and are of primary value to the executive head of the business and those who are responsible for its internal administration." Give illustrations of estimates which may be used by the executives of a business.

19

"The accountant is a historian and not a prophet." What does this statement mean?

20

Can you reconcile the foregoing statement with the following: "But if accounting is to serve as an aid in business control and administration, it must deal with future operations for it is only future operations that are subject to control."

LABORATORY MATERIAL

Exercise No. 131

The W. F. Baird Corporation operates a wholesale dry goods store. It has ten merchandise departments. In addition it has the following auxiliary departments: (a) receiving, (b) shipping, (c) accounting, (d) treasury, (e) credits and collections. The purchases are made by the heads of the merchandise departments. The company owns the property on which it is located, but there is a mortgage outstanding against this property. It also owns the trucks which are used in transferring goods bought and sold from the warehouse of the company to the station and vice versa.

It buys and sells only on account. It both grants and receives discounts for prompt payment of cash. It sometimes receives trade acceptances from customers, but does not issue either trade acceptances or notes to merchandise creditors. It borrows funds from local banks on its notes. The head of each of the five departments receives a percentage of the profits of the department in payment for his services.

Instructions: 1. Prepare a Balance Sheet for the W. F. Baird Company showing the asset, liability and proprietorship items which you think should appear. In preparing this Balance Sheet, you can omit the amounts and show only the items. The position of the amounts on the Balance Sheet can be indicated by dotted lines. For instance, the Building account may be shown as follows:

Building	....	
Reserve for Depreciation . . .	....	....

2. Prepare a Statement of Profit and Loss containing all the items of income and expense which you think would be of interest to the President and General Manager of the Company. In the preparation of this statement, the amounts may be omitted and the same procedure followed which is suggested for the Balance Sheet asked for in (1).

Exercise No. 132

Prepare a chart similar in form to Illustration No. 80, showing the organization of the W. F. Baird Corporation. In the preparation of this chart you may make any assumptions which you think are necessary, but state these assumptions as footnotes to your chart.

CHAPTER L

THE STANDARD FORM OF BALANCE SHEET

The Standard Balance Sheet

Professional accountants and writers on accounting have given much attention to the Balance Sheet as a formal statement of financial condition. Many attempts have been made to devise a standard form of Balance Sheet for use by business enterprises generally. The assumption underlying these attempts is that a form can be devised which can be used to give both the owners and the outside parties who are interested in the business the information they desire. The use of such a uniform or standard form of report has certain advantages. It tends to develop a uniform accounting terminology, which has been woefully lacking. For instance, it tends to develop a standard meaning for such terms as "fixed assets," "current assets," "deferred charges," "reserves," etc. The development of a uniform terminology makes it possible to read and interpret the Balance Sheet more easily and accurately. It makes possible a comparison of data in connection with different firms. As a result, a banker is not only able to understand from the Balance Sheet the financial condition of a customer applying for credit, but is able to compare the present financial condition of the customer with his previous financial condition as shown by previous Balance Sheets and with the financial condition of other customers in the same line of business as shown by their Balance Sheets. This would not be possible, or would at least be difficult, if different firms used different forms of reports and a different terminology, or if the same firm did not employ the same form and terminology in all its Balance Sheets.

The advantages, therefore, of the conventional or uniform Balance Sheet are not to be depreciated, but there is one decided disadvantage in its use which must not be overlooked. When uniformity is sought, there is always a tendency toward rigidity and inelasticity. This is almost inevitably the result for when once uniformity is obtained, a change is made with difficulty. This is well illustrated with reference to the Balance Sheet. Bankers and accountants while insisting on uniformity have become slaves to convention, and many think that a Balance Sheet can not be made in any way other than the standard form. Consequently, the business manager usually receives only the conventional or standard type of Balance Sheet from his accounting staff, or from the public practitioner if he employs a professional accountant, and this orthodox statement may not give him all the information which he needs with reference to his financial condition. In fact, a study of the conventional type of Balance Sheet seems to indicate that its form has been determined largely by the wishes of those outside of the business who desire information with reference to its financial condition, rather than by the wishes of those responsible for the business and who desire information for guidance in planning and controlling its operations.

The Use of the Standard Form of the Balance Sheet

The conventional form of the Balance Sheet has been determined largely by its use. In the past, the principal use of the Balance Sheet has been as a report to the following:

1. Long-time creditors.
2. Short-time creditors.
3. Governmental agencies.
4. Stockholders.

In the main, business men have developed accounting systems and prepared accounting reports only when compelled by necessity. Consequently, the Balance Sheet was prepared originally to meet a particular need. Money must be borrowed and those from whom it was to be borrowed demanded information with reference to the financial condition of the business. The Balance Sheet was prepared to give this information. Thus the Balance Sheet was first prepared as a report to creditors or prospective creditors, and its content and form were adapted to the creditors' needs and desires. Later, when it became customary to submit a Balance Sheet to stockholders as a part of the yearly report, very naturally the orthodox type was used. When governmental agencies required a Balance Sheet in connection with taxation or price regulation, the same form was used. Hence the standard or *pro forma* Balance Sheet became the prevailing type.

Probably the present form of the conventional Balance Sheet will be better understood if a brief discussion is given of the information desired by creditors, governmental agencies and stockholders.

Balance Sheet Desired by Long-Time Creditors

Long-time creditors are usually secured creditors, such as bondholders or mortgage holders; therefore, they are primarily interested in seeing that the specific property against which they have a claim is ample in amount and is maintained in a proper condition. Their chief interest is in the fixed or permanent assets for it is against these that secured liabilities are incurred. They are interested in the current assets of the business only in so far as they indicate that the firm is in a condition to continue profitable operations. For instance, the purchasers of twenty-year bonds are not much concerned with the amount of cash in the bank, which will be used in the current operations of the business, or in the notes and accounts receivable or the merchandise inventory, all of which will be liquidated in the near future and the cash secured from the liquidation disposed of many years before the bonds become due. They are chiefly interested in the land and buildings which are pledged as security for their bonds. A Balance Sheet made for the purpose of bondholders may very profitably show the fixed assets and the fixed liabilities as the first items on the Balance Sheet as shown in Illustration No. 82:

BALANCE SHEET OF THE BOND-ISSUING MANUFACTURING COMPANY, AS AT DECEMBER 31, 1918

ASSETS			LIABILITIES		
(a) Fixed Assets:			(a) Fixed Liabilities:		
Land	......		Bonds Payable	......	
Buildings	......		Mortgages Payable	......	......
Machinery	......		(b) Current Liabilities:		
Office Equipment	......	......	Accounts Payable	......	
(b) Deferred Charges:			Notes Payable	......	
Organization Expenses	......		Accrued Items	......	......
Prepaid Insurance	......	......	PROPRIETORSHIP		
(c) Current Assets:			(a) Capital Stock:		
Finished Goods	......		Preferred	......	
Goods in Process	......		Common	......	
Raw Materials	......		(b) Reserves:		
Accounts Receivable	......		Sinking Fund	......	
Notes Receivable	......		Extensions	......	
Cash	......	......	Contingencies	......	
			(c) Surplus:		
			Unappropriated	......	......
Total Assets		......	Total Liabilities and Capital		......

Illustration No. 82—Balance Sheet for Long-Time Creditors

No attempt is made in the above illustration to make an exhaustive analysis of the assets and liabilities of a business, but only to indicate the general form of a Balance Sheet which is intended for the use of those who are interested chiefly in the fixed or permanent assets of the firm.

Balance Sheet Desired by Short-Time Creditors

Directly contrary to the desires of the long-time creditors, the short-time creditors are interested primarily in the current assets of the firm, for it is from the conversion of these assets that the funds will be obtained with which to pay their claims. They are interested in the fixed assets only in so far as they indicate that the firm is in such a condition that it will not become bankrupt or be placed in a precarious condition before their claims are paid. The banker, it is true, prefers to loan to a firm which will permanently remain prosperous, for when banking and credit relations have been established, they may continue indefinitely. However, the first consideration of the banker is the ratio of current assets to current liabilities. Consequently, a Balance Sheet prepared for the use of short-time creditors, such as banks or merchandise creditors, may well show the current assets and the current liabilities as the first items as shown in Illustration No. 83:

BALANCE SHEET OF THE CREDIT-SEEKING MERCANTILE COMPANY, AS AT DECEMBER 31, 1918

Assets			Liabilities		
(a) Current Assets:			(a) Current Liabilities:		
Cash	......		Notes Payable	......	
Notes Receivable	......		Accounts Payable	......	
Accounts Receivable	......		Accrued Items	......	......
Mdse. Inventory	......	......	(b) Fixed Liabilities:		
(b) Deferred Charges:			Mortgages Payable		......
Prepaid Rent	......				
Unexpired Insurance	......	......	Proprietorship		
(c) Fixed Assets:			(a) Capital Stock:		
Office Equipment	......		Preferred Stock	......	
Buildings	......		Common Stock	......	
Land	......	......	(b) Reserves	......	
			(c) Surplus	......	......
Total Assets		......	Total Liabilities and Capital		......

Illustration No. 83—Balance Sheet for Short-Time Creditors

From the items appearing in the Illustrations Nos. 82 and 83, it may be inferred that the "Bond-Issuing Manufacturing Company" is a manufacturing business and that the "Credit-Seeking Mercantile Company" is a non-manufacturing firm, even if their names did not suggest this fact. As indicated in these illustrations, in the Balance Sheet of a manufacturing firm the fixed assets and liabilities are frequently shown first for two reasons:

1. The fixed assets usually constitute a much larger proportion of the total assets than do the current assets and, therefore, are placed in the most prominent place.

2. Such firms usually obtain the funds with which to finance their business by means of long-time obligations. Consequently, their chief creditors are long-time creditors who are interested in the fixed assets.

On the other hand, in a mercantile or non-manufacturing business, conditions opposite to those described above exist, and the current assets and liabilities are usually shown first on the Balance Sheet for the following reasons:

1. The current assets usually constitute a much larger proportion of the total assets than do the fixed assets and, therefore, are placed in the most prominent place.

2. The chief creditors of such concerns are mercantile creditors or bankers who hold unsecured short-term claims and, consequently, are interested in the current assets.

There is an increasing tendency at the present time to show the current assets and liabilities as the first items on the Balance Sheet regardless of the nature of the business. The author follows this practice almost invariably in his professional work.

Balance Sheet Desired by Governmental Agencies

Governmental agencies wish to obtain information with reference to a business for the following reasons:

1. To be able to control the rates or prices charged.
2. To be able to tax properly the property of the business.
3. To be able to control security issues by the business.

In the first case, the problem is to obtain the net invested capital so as to be able to ascertain the amount of profit to which the firm is entitled, which in turn determines the rate or price to be charged for the service or commodity which it sells. This necessitates only that the amount and nature of the assets and liabilities be stated accurately that the net investment may be obtained. The standard form of Balance Sheet answers this question satisfactorily.

In the matter of taxation, a correct appraisal of the property is all that is necessary and the Balance Sheet is used only in so far as it indicates the value of the property. Its form, therefore, is not material.

In order to control the issues of securities by a business enterprise, information in regard to its financial condition is desired, and this is well shown by the conventional or standard form of the Balance Sheet.

Balance Sheet Desired by Stockholders

The stockholders of a corporation are usually interested only in a brief condensed statement of the assets, liabilities and proprietorship of the corporation. They desire a Balance Sheet which will present them a "bird's-eye" view of the financial condition of the business. The *pro forma* or standard Balance Sheet serves this purpose very well. Of late, it has become customary to present a comparative Balance Sheet in the annual report so that stockholders may see the changes which have taken place in the fiannecial condition of the business during the year. The comparative Balance Sheet has been considered and will be further discussed and illustrated in a subsequent chapter.

Reason for General Use of Standard Type of Balance Sheet

It will be seen, therefore, that the standard form of Balance Sheet, showing assets and liabilities classified according to their liquidity, provides satisfactorily the information desired by those outside of the business; and since many business managers make little use of the Balance Sheet as a basis of management, it has become the prevalent type. It is the form, with slight variations, which will be found in all the current text-books on accounting, in the published reports of business firms, in the financial columns of the daily press, and the form which the public accountant almost invariably presents to his client. It is important, therefore, that the student become familiar with its construction and the meaning of its terminology. The illustration on pages 734 and 735 is an example of the standard form of Balance Sheet showing in considerable detail the assets and liabilities which may appear on the Balance Sheet.

Assets

Cash:		
1a. Cash on hand—currency and coin	......	
1b. Cash in bank	......	
		......
Notes and Accounts Receivable:		
3. Notes Receivable of customers on hand (not past due)	......	
5. Notes Receivable discounted or sold with endorsement or guaranty	......	
7. Accounts Receivable, customers (not past due)	......	
9. Notes Receivable, customers, past due (cash value)	......	
11. Accounts Receivable, customers, past due (cash value $......)	......	
Less:		
13. Provisions for bad debts	......	
14. Provisions for discounts, freights, allowances, etc.	......	
		......
Inventories:		
17. Raw material on hand	......	
19. Goods in process	......	
21. Uncompleted contracts, less payments on account thereof	......	
23. Finished goods on hand	......	
		......
Other quick assets (describe fully):		
....	......	
....	......	
Total quick assets (excluding all investments)		......
Securities:		
25. Securities readily marketable and salable without impairing the business	......	
27. Notes given by officers, stockholders or employes	......	
28. Accounts due from officers, stockholders or employes	......	......
Total Current Assets		......
Fixed Assets:		
31. Land used for plant	......	
33. Buildings used for plant	......	
35. Machinery	......	
37. Tools and plant equipment	......	
39. Patterns and drawings	......	
41. Office furniture and fixtures	......	
43. Other fixed assets, if any (describe fully)	......	
Less:		
45. Reserves for Depreciation	......	
Total Fixed Assets		......
Deferred Charges:		
47. Prepaid expenses, interest, insurance, taxes	......	......
Other Assets:		
49.	......	......
Total Assets		

Liabilities

Bills, Notes and Accounts Payable:		
Unsecured bills and notes—		
2. Acceptances made for merchandise or raw material purchased	......	
4. Notes given for merchandise or raw material purchased	......	
6. Notes given to banks for money borrowed	......	
8. Notes sold through brokers	......	
10. Notes given for machinery, additions to plant, etc.	......	
12. Notes due to stockholders, officers or employes	......	
		......
Unsecured Accounts:		
14. Accounts payable for purchases (not yet due)	......	
16. Accounts payable for purchases (past due)	......	
18. Accounts payable to stockholders, officers or employes	......	
		......
Secured Liabilities:		
20a. Notes receivable discounted or sold with endorsement or guaranty (contra)	......	
20b. Customers' accounts discounted or assigned (contra)	......	
20c. Obligations secured by liens on inventories	......	
20d. Obligations secured by securities deposited as collateral	......	......
22. Accrued liabilities (taxes, wages, etc.)	......	
Other Current Liabilities (describe fully):		
....	......	
....	......	......
Total Current Liabilities		......
Fixed Liabilities:		
24. Mortgages on plant (due date ......)	.....	
26. Mortgages on other real estate (due date ......)	......	
28. Chattel mortgage on machinery or equipment (due date ......)	......	
30. Bonded debt (due date ......)	......	......
32. Other fixed liabilities (describe fully):		
....	......	
....	......	......
Total liabilities		......
Net Worth:		
34. If a corporation—		
(a) Preferred stock (less stock in treasury)	......	
(b) Common stock (less stock in treasury)	......	
(c) Surplus and undivided profits	......	......
Less:		
(d) Book value of goodwill	......	
(e) Deficit	......	......
36. If an individual or partnership—		
(a) Capital	......	
(b) Undistributed profits or deficit	......	......
Total		......

Illustration No. 84—Standard Form of Balance Sheet

The Standard Form of Balance Sheet

The Federal Reserve Board has suggested a standard form of Balance Sheet for general use by all business concerns having occasion to borrow from banks which are members of the Federal Reserve System. This Balance Sheet is shown in Illustration No. 84.

The student is already familiar with most of the items which appear on this proposed standard form. There are a few, however, which may be new to him and the arrangement of some of the items may be different from that to which he is accustomed. It is deemed desirable to discuss briefly these points.

Notes and Accounts Receivable

In connection with the notes and accounts receivable, three things of importance are noticed: (1) Both the accounts and the notes are classified so as to show those which are past due. This is useful information to show on the Balance Sheet since it helps to estimate the value of the notes and accounts and to determine the adequacy of the reserve for bad debts. (2) The value of the notes and accounts receivable is reduced by the estimated deductions for discounts, freights and allowances. This is a conservative and desirable practice. The amount of such deductions can be estimated on the basis of the past experience of the firm. (3) Notes receivable discounted are shown among the assets. By reference to the liabilities it will be noticed that they are included there. It will be seen that the two items cancel each other. When notes receivable are discounted, it is necessary for them to be endorsed by the firm offering them for discount. This endorsement makes the notes a contingent liability of the firm. This contingent liability should be shown in some way on the Balance Sheet. One method is to show the notes discounted as both an asset and a liability as in the foregoing illustration. Another, and more frequent, method is to omit them from the Balance Sheet proper and show them by means of a footnote. Either method is in accordance with current accounting practice.

Securities

Under this head are shown stocks and bonds of corporations which are owned by the business and the obligations of employees to the business. There may be some question about showing the obligations of employees to the business under the heading of securities. In any case, they must be shown separately from the notes and accounts held against others.

Bills, Notes and Accounts Payable

It will be noticed that a careful distinction is made between the current liabilities which are secured and those which are unsecured. From a credit viewpoint this distinction is quite important since the secured creditors have prior claim to certain assets. In case of financial difficulties which lead to insolvency the secured creditors will receive satisfaction of their claims from pledged assets before the unsecured creditors receive any part of these assets. Both the notes payable and the accounts payable are classified to show to whom or for what they have been incurred. The accrued taxes and wages are shown under secured liabilities for they are usually *preferred* liabilities, that is, by law they must be paid, in case of dissolution, prior to all other claims.

Net Worth

Space is provided under "Net Worth" for showing the proprietorship of either a corporation, a partnership or an individual. It will be noticed that the net worth is shown as an item separate and distinct from the liabilities. This is the way in which it should always be shown. In many Balance Sheets the liabilities and net worth are shown under the heading "Liabilities and Capital." In some cases Capital Stock is shown as the first item on the credit side of the Balance Sheet and Surplus as the last item.

The Balance Sheet of a well-known corporation for the year 1919, as presented to the stockholders of the company at their annual meeting on March 25, 1920, shows the liabilities and net worth of the company as follows:

Liabilities

CAPITAL STOCK:		
Authorized	$18,000,000.00	
Less Unissued	1,034,900.00	
Issued and Outstanding . . .		$16,965,100.00
CURRENT LIABILITIES:		
Accounts Payable	1,047,626.81	
Accrued Taxes (Estimate) . . .	743,634.32	
Pay Roll	114,384.70	
		1,905,645.83
Reserves		3,467,590.73
Surplus		2,265,787.29
		$24,604,123.85

Although it is a prevalent practice for accountants to include Capital Stock and Surplus as liabilities, as shown by the foregoing illustration, the author thinks that such a practice is erroneous and misleading. It is true that there is a secondary obligation of the corporation to the stockholders for the amount of the capital stock and surplus, but this obligation is so different from the obligation of the corporation to outsiders that it should undoubtedly be shown under a separate heading. In any case all items of proprietorship should be shown together and not be separated as they are on the foregoing Balance Sheet. It is just as illogical to show Capital Stock as the first item and Surplus as the last item on the liability side of the Balance Sheet, as it would be to show Cash on Hand as the first item and Cash in Bank as the last item on the asset side of the Balance Sheet.

If it is assumed that the Reserves are a part of the proprietorship, the credit side of the Balance Sheet may be restated as follows:

CURRENT LIABILITIES:		
Accounts Payable	$1,047,626.81	
Accrued Taxes	743,634.32	
Accrued Wages	114,384.70	
Total Liabilities		$1,905,645.83
PROPRIETORSHIP:		
Capital Stock	$18,000,000.00	
Authorized	1,034,900.00	
Outstanding	$16,965,100.00	
Reserves	3,467,590.73	
Surplus	2,265,787.29	
Total Proprietorship		22,698,478.02
Total Liabilities and Proprietorship		$24,604,123.85

A Balance Sheet prepared in this form makes it possible to obtain the amount of the net worth or proprietorship at a glance. This enables the stockholders to see their interest in the business and enables them to determine the book value of their stock. By a comparison of the net worth, as shown by the Balance Sheet, with the net income, as shown by the Statement of Profit and Loss, the ratio of earnings to investment can be ascertained, and this is of importance to stockholders as well as others who may be interested in the financial condition of the business.

QUESTIONS FOR CLASS DISCUSSION

1

Explain the advantages derived from the use of a standard form of Balance Sheet. Give illustrations of such advantages.

2

Explain the possible disadvantage of the general acceptance of a standard form of Balance Sheet.

3

For whose use is the Balance Sheet intended?

4

Explain the difference between the information which is desired by bondholders and the information desired by merchandise creditors.

5

Can both of these obtain the information which they desire from the same form of Balance Sheet or will they need a different form?

6

How do you explain the fact that on some Balance Sheets, the fixed assets are shown first, while on others the current assets are shown first?

7

Does this difference in form in any way affect the financial condition of the business as shown by the Balance Sheet?

8

Explain the nature of the information which may be desired by governmental agencies with reference to a business. In what way is the Balance Sheet of value in providing this information?

9

Explain and illustrate two ways in which notes receivable discounted may be shown on the Balance Sheet. Why should they be shown on the Balance Sheet at all?

10

Explain and illustrate how accounts and notes receivable may be classified on the Balance Sheet.

11

Explain and illustrate how notes payable may be classified on the Balance Sheet?

12

What is a *preferred* liability? Illustrate.

13

What is a *contingent* liability? Illustrate.

14

The credit side of the Balance Sheet of the American Manufacturing Company appears as follows:

Liabilities

CAPITAL STOCK:	
Preferred Stock	$100,000.00
Common Stock	200,000.00
Accounts Payable	75,000.00
Notes Payable	85.000.00
Bonds Payable	225,000.00
Surplus	65,000.00
Total Liabilities	$750,000.00

State your objections to this method of showing the credit side of the Balance Sheet and explain how you would change it.

15

The X Manufacturing Company applies to The Merchants Bank for a loan. The bank upon examination of the financial condition of the company determines that its present financial condition is such as to warrant the loan, but that the nature of its operations is such as to indicate that it will not long remain in a prosperous position. Will the bank be justified in granting the loan?

LABORATORY MATERIAL

Exercise No. 133

E. G. Miller, as sole proprietor, is engaged in the retail hardware business. He buys on account, the usual terms being 1/10, n/60. He takes all discounts offered. He sells for both cash and account, but offers no discount. He owns the building in which he conducts his business, but there is a mortgage equal to one-half of its value outstanding against it.

Miller forms a partnership with H. L. Darner under the firm name of Miller & Darner. The partnership will engage in the retail hardware and furniture business. Mr. Miller will have supervision of the hardware department, and Mr. Darner of the furniture department. Both sales and purchases will be made on account. Furniture will be sold on the instalment plan and notes taken in payment. Additional working capital is to be obtained by means of bank loans. The partners agree that twenty per cent of the yearly profits are to be retained in the business, and these are not to be distributed to the partners on the books. It is decided to maintain a delivery service for customers.

Miller and Darner incorporate under the name of The Miller Furniture Company. Forty per cent of the capital stock is to be preferred and the remainder common. Ten per cent of the preferred stock and twenty per cent of the common stock will not be issued at present. The new company decides to manufacture part of the furniture which it sells and accordingly purchases land, building and equipment for that purpose. It issues bonds which are secured by a mortgage on its manufacturing plant. The corporation decides to reserve and set aside in a special account sufficient of the profits each year to be able to extend the plant and equipment to double its present size at the end of ten years.

Instructions: Prepare a Balance Sheet, suppling both items and amounts, for each of the following:

(a) E. G. Miller, sole proprietor.

(b) Miller & Darner. the partnership.

(c) The Miller Furniture Company, the corporation.

In preparing these Balance Sheets, it may be assumed in each case that the business has been in operation two years at the time the Balance Sheet is prepared.

Exercise No. 134

The following statement gives the assets and liabilities of the Taylor Manufacturing Company, December 31, 1921:

Cash	$10,000.00
Land	80,000.00
Liberty Bonds	100,000.00
Buildings	120,000.00
Accounts Payable	200,000.00
Notes Receivable	90,000.00
Reserve for Sinking Fund	30,000.00
Accrued Interest on Bonds Payable	2,000.00
Reserve for Depreciation on Buildings	10,000.00
Accrued Wages	1,000.00
Inventories:	
Raw Materials	120,000.00
Goods in Process	180,000.00
Finished Goods	105,000.00
Reserve for Depreciation on Inventories	25,000.00
Accrued Interest on Notes Receivable	5,000.00
Unexpired Insurance	8,000.00
Reserve for Federal Taxes	42,000.00
Accounts Receivable	300,000.00
Notes Payable	200,000.00
Bonds Payable	50,000.00
Mortgage on Building	20,000.00
Machinery and Equipment	220,000.00
Office Equipment	40,000.00
Notes Owed by Officers of Company	10,000.00
Notes Receivable Discounted	20,000.00
Reserve for Extensions	30,000.00
Prepaid Interest	2,000.00
Advances to Salesmen	3,000.00
Investment of Surplus in X. Y. Z. Company	20,000.00
Invest in Stock of Subsidiaries	80,000.00
Sinking Fund for Bonds	18,000.00
Reserve for Dep. on Mach., Equip. and Office Furn.	20,000.00
Preferred Stock Outstanding	200,000.00
Common Stock Outstanding	400,000.00
Surplus	225,000.00

Instructions: Prepare a Balance Sheet for the Taylor Manufacturing Company as of December 31, 1921.

Exercise No. 135

The Trial Balance of E. E. Spanabel, sole proprietor, on December 31, 1921, is as follows:

E. E. Spanabel, Capital		$40,000.00
E. E. Spanabel, Personal	$ 2,000.00	
Bank of Manhattan	1,200.00	
Cash on Hand	180.00	
Merchandise	17,200.00	
Repairs	175.00	
Bills Receivable	12,800.00	
Bills Payable		8,000.00
Real Estate	2,700.00	
Bank Stock	3,132.00	
General Expenses	3,720.00	
Freight	2,000.00	
Accounts Receivable	16,000.00	
Accounts Payable		20,000.00
Profit and Loss	6,893.00	
	$68,000.00	$68,000.00

The inventory of merchandise on December 31, 1921, is $30,000.00.

Instructions: 1. Assuming any information which you find necessary prepare a Balance Sheet for E. E. Spanabel as of December 31, 1921. State as footnotes any assumptions which you make.

2. Write a letter to E. E. Spanabel suggesting such changes in his accounting methods as you think his Trial Balance shows should be made.

CHAPTER LI

THE STANDARD FORM OF STATEMENT OF PROFIT AND LOSS

Standardization of the Statement of Profit and Loss

Previous mention has been made of a movement toward uniformity and standardization of forms of financial reports. This movement has received much attention from practicing accountants and writers on accounting during the past few years. In its application, however, there does not seem to have been as near an approach to a standardized treatment of the Statement of Profit and Loss as there has been of the Balance Sheet. This may be readily seen by comparing statements prepared by different practicing accountants for similar types of businesses, statements shown by way of illustration in the text books by various writers, and various classifications issued by governmental commissions and associations of business men.

This results partly from the fact that businesses actually differ more in the nature of their operations than they do in the nature of their assets and liabilities, and partly from the fact that accountants vary more in their thinking on the nature and treatment of various items of income and expense than they do with regard to assets and liabilities. An added reason for the greater lack of uniformity here is the fact that much less emphasis is laid on the Statement of Profit and Loss in reports to stockholders and to both long-time and short-time creditors and prospective creditors. The Balance Sheet may be set forth in full, or, if condensed, supported by numerous schedules, whereas the Statement of Profit and Loss in such a report is rarely more than the briefest summary of results. For example, the annual report of the International Harvester Corporation for the year 1917 devotes nine pages to a carefully drawn standard Balance Sheet and the accompanying schedules, while the Statement of Income and Profit and Loss given occupies a scant half-page, and starts out with the figure of net operating revenue. Some annual reports contain no statement of income at all.

Statement of Profit and Loss Usually Condensed

This tendency toward briefness in the Statement of Profit and Loss can be readily accounted for if one considers the uses for which such a statement is prepared. The stockholders and the creditors, who are the two principal outside groups interested in the periodical financial reports of the business, have a strong interest in the earning power of the business, as reflected in its income statement. As a rule, however, they are content with a brief summary of the facts with rsepect to earnings, and are not interested in the details. Very few members of either of these groups would take the trouble to read a statement which presented an elaborate analysis of income and expense.

The same holds true of the use of such statements by governmental agencies with a few exceptions. In the case of a public utility, which is required to report to some governmental agency as an aid to rate regulation, income and expense must be reported in considerable detail. In such cases, the form of the report is usually prescribed by the regulatory body which requires such a report. The income tax blank provided by the Treasury Department for the report of income to be taxed is an example of a form required by a governmental agency.

The amount of detail considered desirable in a Statement of Profit and Loss submitted in connection with the Balance Sheet to interested parties outside the management, does not ordinarily exceed that shown by the following outline:

Net Sales		....
Less Cost of Goods Sold		....
Gross Operating Profit		....
Less Operating Expenses		....
Net Operating Profit		....
All Other Income		....
Gross Income		....
Other Deductions—Fixed Charges, etc.		....
Net Profit		....
Appropriations:		
Dividends	....	
Reserves	....	....
Carried to Surplus		....

This tendency to condense the Statement of Profit and Loss when it is presented in a formal report is indicated in Illustration Nos. 85 and 86; these present the income statements of two large corporations, as shown in their published annual reports.

CONSUMERS COMPANY, CHICAGO, ILLINOIS
Condensed Income Account, Year Ending December 31, 1918

Gross Profit from Sales		$5,077,858.51
Teaming and Cartage		1,763,905.83
		$3,313,952.68
All Operations and Administration		1,382,291.76
		$1,931,660.92
Expended for Repairs, Depreciation of Horses and Motor Trucks, and Reserves for Coal Inventory Adjustment and Ice Shrinkage	$774,804.16	
Advertising	59,420.41	
		834,224.57
		$1,097,436.35
Interest on First Mortgage Bonds (K. I. Co.)	$184,970.82	
Interest on Serial Debentures	75,500.00	
Interest on Loans	33,199.06	
		293,669.88
Net Income		$ 803,766.47

Illustration No. 85—Condensed Income Statement

INTERNATIONAL MERCANTILE MARINE COMPANY AND SUBSIDIARY COMPANIES

Statement of Earnings for Year Ended December 31, 1918, from the Operation of the American, Red Star, White Star, Atlantic Transport and Dominion Lines, together with Dividends Received from the Leyland Company and other Partly Owned Companies:

Gross Earnings after providing for British Excess Profits Duty and Proportion of Profits Payable to Vendors of Steamship	$30,151,368.78
Miscellaneous Earnings	4,516,984.90
	$34,668,353.68
Deduct:	
Gross Operating and General Expenses, Taxes and Miscellaneous Interest	$18,938,053.91
	$15,730,299.77
Deduct:	
Fixed Charges	$ 2,789,762.55
Balance, being Profit for the Year, before providing for Depreciation on Steamships	$12,940,537.22

Illustration No. 86—Statement of Earnings

The Standard Form of Statement of Profit and Loss

It is hardly safe to say that there is such a thing as a standard form of Statement of Profit and Loss. It is true, however, that the Statement of Profit and Loss prepared for similar businesses by professional accountants have many points of similarity. Thus, in any such statement, the first item is that of operating income, which is realized from the sale of the commodity or service which the particular business has to offer. From the gross earnings from sales are deducted any such items as returns, rebates, and allowances, giving as a result the net earnings from sales. The cost of the goods or services sold, whether produced or purchased, is then deducted from the figure of net sales, the difference being the amount of gross operating profit. From this is deducted the sum of the operating expenses, to obtain the amount of net operating profit. Other income is added to this, and non-operating expenses or other deductions from income deducted. The resulting figure shows the net profit for the period. This is usually followed by some information with respect to the disposition made of such net profit.

Mr. Arthur Lowes Dickinson, C.P.A., in his work entitled "Accounting Practice and Procedure," offers a standard form, with variations for different types of businesses. This form may be taken as typical for the most part of that employed generally by practicing accountants. It is reproduced below. The forms up to the point where net profits are ascertained will be as follows:

MANUFACTURING AND MERCHANDISING:		
Gross earnings from sales	......	
Less—Returns, allowances and discounts	......	
Net earnings from sales		......
Deduct—Cost of production or service		......
Gross profit		......
Deduct—Cost of selling	......	
Expenses of management	......	......
Net profit from operations		......
AGENCY AND COMMISSION:		
Commission earned	......	
Deduct—Expenses of management		......
Cost of guarantees	......	......
Net profit from operations		......
TRANSPORTATION:		
Earnings from operations		......
Deduct—Operating expenses	......	
Taxes	......	......
Net profit from operations or operating income		......

BANKING:		
Earnings from—		
Interest	......	
Commissions	......	
Other profits	......	......
Deduct—Expenses of operation and management		......
Net profits from operations		......
PROFESSIONAL:		
Gross earnings from fees	......	
Less—Out-of-pocket expenses included therein	......	
Net earnings from fees		......
Deduct—Expenses of operation and management		......
Net profit from operations		......

The form for the remainder of the statement will be the same in all cases, viz:

Net profit from operations	......	
Other income	......	......
Deduct—Interest on bonds	......	
Other fixed charges	......	......
Surplus for the year		......
Extraordinary profits (detailed)		......
Surplus brought forward from preceding year		......
Deduct—Extraordinary charges		......
Total surplus available		......
Dividends on stock		......
Surplus carried forward		......

Standard Form of Statement of Profit and Loss Recommended by the Federal Reserve Board

The Federal Reserve Board has suggested the standard form of the Statement of Profit and Loss shown in Illustration No. 87, for general use by all business firms seeking to borrow from banks which are members of the Federal Reserve System.

COMPARATIVE STATEMENT OF PROFIT AND LOSS FOR THREE YEARS, ENDING ...., 19....

	Year ending		
	19	19	19
Gross sales	$............	$............	$............
Less outward freight, allowances, and returns	....	....	....
Net sales	....	....	....

Illustration No. 87—(*Concluded on page 749*)

STANDARD FORM OF STATEMENT OF PROFIT AND LOSS—Concluded.

Inventory beginning of year	....	....	....
Purchases, net	....	....	....
Less inventory end of year	....	....	....
Cost of sales	....	....	....
Gross profit on sales	....	....	....
Selling expenses (itemized to correspond with legder accounts kept)	....	....	....
Total selling expense	....	....	....
General expenses (itemized to correspond with ledger accounts kept)	....	....	....
Total general expense	....	....	....
Administrative expenses (itemized to correspond with ledger accounts kept)	....	....	....
Total administrative expenses	....	....	....
Total expenses	....	....	....
Net profit on sales	....	....	....
Other income:			
Income from investments	....	....	....
Interest on notes receivable, etc.	....	....	....
Gross income	....	....	....
Deductions from income:			
Interest on bonded debt	....	....	....
Interest on notes payable	....	....	....
Total deductions	....	....	....
Net income—profit and loss	....	....	....
Add special credits to profit and loss	....	....	....
Deduct special charges to profit and loss	....	....	....
Profit and loss for period	....	....	....
Surplus beginning of period	....	....	....
Dividends paid	....	....	....
	....	....	....
Surplus ending of period	....	....	....

Illustration No. 87—Standard Form of Statement of Profit and Loss

The foregoing Statement of Profit and Loss, as well as the Balance Sheet given in the preceding chapter, are of especial significance due to the fact that they were prepared for the Federal Reserve Board by a committee of accountants appointed by the American Institute of Accountants. Since the American Institute of Accountants is the official national organization of the public accountants of the United States, these forms may be considered as representing the best opinion of the accounting profession.

Summary

From the foregoing discussion and illustrations of the Statement of Profit and Loss it is apparent that this form of report is primarily intended to furnish those interested in the general financial condition of the business with the following information:

1. Gross operating income.
2. Net operating income.
3. Other income and other deductions.
4. Net income.
5. The appropriation made of net profit.

To serve the purpose for which it is designed, this statement should be brief, showing only a summary of the results of the period's operations. Any additional detail which may be of interest to the parties interested may be set forth in supplementary reports. Both the Statement of Profit and Loss and the Balance Sheet are often supplemented by such reports. Many practicing accountants apply the term *schedules* to all such reports, but there is recently some tendency to apply this term only to statements giving the details of Balance Sheet items. In this case, the statements showing analysis of items of income and expense are known as *analytical statements.*

The standard Statement of Profit and Loss is a highly valuable form of report when designed for its proper purpose, which is that of reporting to interested parties outside the management. It is also of interest to members of the managerial force, furnishing much information that is of significance to them. It is not to be considered, however, as an analysis of income and expense which is adequate for all managerial uses. The information with respect to income and expense must be analyzed on different bases if it is to be of the most value to the members of the managerial force.

QUESTIONS FOR CLASS DISCUSSION

1

What reasons can you give for the greater need for the standardization of the Balance Sheet than of the Statement of Profit and Loss?

2

What are usually the principal items shown on the Statement of Profit and Loss submitted to stockholders? What is your opinion with reference to the adequacy of this statement? Would you as a stockholder desire more or less information?

3

The King Corporation is a manufacturing business. The Jones Corporation is a mercantile business. Explain the difference between the items which will appear on the Statement of Profit and Loss of the two firms.

4

The Hayman Real Estate Agency buys and sells real estate on a commission. It also rents property on the same basis. Prepare in skeleton form a Statement of Profit and Loss for this company.

5

The Central Railroad Company operates passenger and freight trains. Prepare in skeleton form a Statement of Profit and Loss for this company.

6

In the same manner, prepare a Statement of Profit and Loss for (a) The National City Bank, and (b) Anderson and Bowen, Certified Public Accountants.

7

The Statement of Profit and Loss of the Boston National Bank shows "Interest" as an item of operating income. The New York Department Store shows it as a "Deduction from Income." Explain.

8

The Statement of Profit and Loss of the International Mercantile Marine Company shows this item, "Balance, Being Profit for the Year, Before Providing for Depreciation on Steamships." What is your opinion of this statement? Where would you show depreciation on the Statement of Profit and Loss of this company.

9

The Northern Manufacturing Company decides to set aside twenty per cent of its profits each year to provide for the extension of its plant and equipment. How will the amount of the yearly additions to this reserve be shown on the Statement of Profit and Loss?

10

On the Statement of Profit and Loss of the X Company, there appears under "Other Income" the following item, "Merchandise Discount—$600.00." An analysis shows that the sales discounts for the year are $2,200.00 and the purchases discounts are $2,800.00. Do you regard the method of the X Company in showing these discounts satisfactory? Why?

11

The total selling expenses of the Y Corporation for the year 1920 are $40,000.00. Of these, $32,000.00 are shown in a Miscellaneous Selling Expense account. What would you recommend?

12

At the end of the fiscal year the profits of the Western Steel Company are $40,000.00. The Board of Directors declare a dividend of $20,000.00. How would the dividend be shown: (a) in the accounts; (b) on the Statement of Profit and Loss. Under what conditions will it be omitted from the Statement of Profit and Loss?

13

How will the remaining $20,000.00 of profits be shown (a) in the accounts, and (b) on the Statement of Profit and Loss?

14

The Eastern Manufacturing Company sells a large order of machinery to the King Automobile Company. Several of the machines shipped to the King Automobile Company are unsatisfactory and are returned to the seller at the seller's expense. How will the freight on the returned machines be shown on the Statement of Profit and Loss?

15

You are requested to prepare in skeleton form a Statement of Profit and Loss to be used by the bookkeeper of a company in preparing periodical statements for the company. What would you desire to know before drawing up the form of the statement?

LABORATORY MATERIAL

Exercise No. 136

AMERICAN AUTOMOBILE CO., TRIAL BALANCE, DEC. 31, 1918

Land	$ 20,000.00	
Buildings	50,000.00	
Machinery and Tools	40,000.00	
Delivery Equipment	5,000.00	
Patent	7,000.00	
Office Furniture	700.00	
Notes Receivable	10,700.00	
Notes Receivable Discounted		$ 6,000.00
Accounts Receivable	19,000.00	
Raw Materials Inventory, Jan. 1, 1918	20,000.00	
Goods in Process Inventory, Jan. 1, 1918	5,000.00	
Automobiles Inventory, Jan. 1, 1918	8,000.00	
Automobile Supplies Inventory, Jan. 1, 1918	12,000.00	
First National Bank	8,600.00	
Petty Cash	140.00	
Bonds Payable 5% Mortgage		40,000.00
Reserve for Depreciation of Buildings		1,200.00
Reserve for Depreciation of Mach. and Tools		1,000.00
Reserve for Depreciation of Delivery Equip.		200.00
Notes Payable		2,000.00
Accounts Payable		24,000.00
Capital Stock		100,000.00
Surplus		18,000.00
Treasury Stock	10,000.00	
Purchases, Raw Material	40,000.00	
Purchases, Auto Supplies	30,000.00	
Freight Inward, Raw Materials	2,450.00	
Freight Inward, Auto Supplies	1,340.00	
Freight and Cartage Outward	824.00	
Sales, Automobiles		131,130.00
Sales, Auto Supplies		58,960.00
Productive Labor	32,400.00	
Non-productive Labor	15,230.00	
Superintendence	3,420.00	
Heat, Light and Power	8,500.00	
Shop Supplies	2,490.00	
Miscellaneous Supplies	1,300.00	
Insurance	300.00	
Repairs to Machinery and Tools	2,146.00	
Taxes	400.00	
Advertising	3,420.00	
Sales Ret. and Allow., Automobiles	1,200.00	
Sales Ret. and Allow., Auto Supplies	882.00	
Discount on Sales	3,710.00	
Discount on Purchases		5,071.00
Salesmen's Salaries	6,570.00	
Salesmen's Traveling Expense	2,354.00	
Advances to Salesmen	450.00	
Office Salaries	8,630.00	
Legal Expense	540.00	
Stationery and Printing	1,200.00	
Postage	190.00	
Interest	315.00	
Miscellaneous Selling Expense	1,160.00	
	$387,561.00	$387,561.00

(*Concluded on page 754*)

Inventories, December 31, 1918:	
Raw Materials	$21,000.00
Goods in Process	7,000.00
Automobiles Finished	13,000.00
Auto Supplies	8,000.00
Accruals:	
Interest on Bonds	$ 2,000.00
Interest on Notes Payable	40.00
Interest on Notes Receivable	75.00
Taxes (Estimated)	100.00
Unexpired Insurance	$ 100.00

Depreciation:
- Buildings, 5% of original value
- Machinery and Tools, 10% on diminishing value
- Delivery Equipment, 20% on diminishing value
- Office Furniture 10% of original cost

Reserve for Doubtful Accounts:
2% of sales

Patents expire in fourteen years from January 1, 1918.

One-half of Advertising is to be carried to the next period.

Three-fourths of the expired insurance and taxes are to be charged to Manufacturing and the remaining one-fourth to Selling Expense; Depreciation of Delivery Equipment is to be divided equally between Manufacturing and Selling Expense.

Instructions: 1. Prepare a Balance Sheet.

2. Prepare a Statement of Profit and Loss.

Exercise No. 137

From the data given in Exercise No. 133, prepare in skeleton form a Statement of Profit and Loss for: (a) E. G. Miller, sole proprietor. (b) Miller & Darner, the partnership. (c) The Miller Furniture Company, the corporation.

Exercise No. 138

From the data given in Exercise No. 135, (1) prepare a Statement of Profit and Loss for E. E. Spanabel, sole proprietor; (2) prepare journal entries to close accounts of E. E. Spanabel.

Exercise No. 139

The following figures are taken from the books of the Lewis Manufacturing Company as at December 31, 1920:

Purchase of Raw Material	$37,500.00	Wages	$22,500.00
Sales	81,250.00	Power, Light and Heat	3,125.00
Boxes and Cases	3,125.00	Repairs	685.00
Bills Receivable	38,400.00	Sundry Expenses (Mills)	1,060.00
Cash at Bank and in hand	14,065.00	Insurance	155.00
Sundry Debtors	22,500.00	Sales Returns	1,000.00
Discounts Received	2,500.00	Depreciation	425.00
Discounts Allowed	440.00	Taxes	310.00
Interest on Loans	410.00	Advertising	1,250.00
Machinery and Plant	65,925.00	Salaries	2,500.00
Fixtures, Fittings, Office	4,750.00	Traveling Expenses	1,125.00
Sundry Creditors	6,250.00	Commissions Paid	1,875.00
Bills Payable	37,500.00	Capital	95,625.00

Instructions: Prepare a Trial Balance, Balance Sheet, and Statement of Profit and Loss, and make the journal entries to close the ledger.

CHAPTER LII

ANALYSIS OF FINANCIAL STATEMENTS

Basis for the Interpretation and Use of Financial Statements

That financial statements may be properly interpreted and used it is necessary:

1. That the statements be drawn in the proper form with the desirable classification of the items which appear on them.
2. That the items appearing on the statements be correctly stated both as to amount and as to title.
3. That proper comparisons be made to determine the present financial condition as shown by the current statements and to indicate the changes in financial condition from that shown by previous statements.

Considerable attention has been given in previous chapters to the form of the most widely used financial statements, the Balance Sheet and the Statement of Profit and Loss. Considerable emphasis has also been placed upon the classification of the items which appear on these statements. To this end, current assets, fixed assets, deferred charges to expense, current liabilities, fixed liabilities and net worth were discussed and illustrated in connection with the Balance Sheet; and operating income, operating expense, non-operating income and non-operating expense were discussed and illustrated in connection with the Statement of Profit and Loss. It may be assumed, therefore, that the student is familiar with the form and general content of these statements. It is the purpose of the present chapter and those immediately following to discuss the information which should appear under these principal headings and the method of judging the financial condition of the business by a consideration of this information. This will involve a consideration of each of the asset, liability and capital items which ordinarily appear on the Balance Sheet and of each of the income and expense items which ordinarily appear on the Statement of Profit and Loss.

The Balance Sheet

To serve as a basis for the present discussion a Balance Sheet made in the standard form is given on page 756.

THE HARTLEY COMPANY,

Balance Sheet as of December 31, 1920

Assets			
CURRENT:			
Cash:			
On Hand	$ 200.00		
In Bank	19,800.00	$ 20,000 00	
Notes Receivable		3,000 00	
Accounts Receivable	205,000.00		
Less: Reserve for Bad Debts	5,000.00	200,000 00	
Inventories		80,000 00	
Accrued Income		3,000 00	
Total Current Assets			$306,000 00
INVESTMENTS:			
Brown Manufacturing Co., Preferred Stock		20,000 00	
U. S. Bonds		2,000 00	
Total Investments			22,000 00
DEFERRED CHARGES TO EXPENSE:			
Prepaid Insurance		800 00	
Unused Supplies		200 00	
Organization Expenses		9,000 00	
Total Deferred Charges to Expense			10,000 00
FIXED:			
Office Equipment	4,000.00		
Less: Depreciation	1,200.00	2,800 00	
Machinery and Equipment	75,000.00		
Less: Depreciation	25,000.00	50,000 00	
Buildings	40,000.00		
Less: Depreciation	10,000.00	30,000 00	
Land		20,000 00	
Total Fixed Assets			102,800 00
INTANGIBLE:			
Goodwill		30,000 00	
Patents		20,000 00	
Total Intangible Assets			50,000 00
TOTAL ASSETS:			490,800 00
Liabilities			
CURRENT:			
Notes Payable		70,000 00	
Accounts Payable		40,000 00	
Accrued Liabilities		3,000 00	
Total Current Liabilities			113,000 00
FIXED:			
Bonds Payable			50,000 00
NET WORTH:			
Capital Stock		200,000 00	
Reserve for Sinking Fund		40,000 00	
Surplus		87,800 00	
Total Net Worth			327,800 00
TOTAL LIABILITIES AND CAPITAL			490,800 00

For the sake of brevity, detailed classifications of the items shown on the Balance Sheet on page 756 are not given. The classifications which may be made will be explained in the subsequent discussion.

Current Assets

Cash

The cash item shown on the Balance Sheet usually represents cash on hand and cash on deposit in the bank. By "cash on hand" is meant that in the cash drawer. In case there are cash funds maintained at the branch offices, the amount of these funds should be shown as a separate item. Cash on hand should represent currency and checks which have been received and not yet presented for deposit or payment. It should not include dishonored checks, due bills and I. O. U.'s received from employees. The cash in bank should represent funds on deposit which are subject to withdrawal without notice. Time deposits should be shown as a separate item. All outstanding checks should be subtracted in determining the balance on deposit. Although these checks may not have been presented for payment, the funds which they represent are no longer available for the use of the issuing company. The cash on hand ordinarily represents only a small per cent of the total cash of the company. All cash received should be deposited daily and only a small amount withdrawn for use as petty cash. The operation of the petty cash fund has been previously explained.

Notes Receivable

The notes received from customers in payment of merchandise should be shown as a separate item from the notes received for any other purpose. If notes are received from officers and employees or from subsidiary companies, these must be shown separately. If notes have been pledged as collateral for loans, the amount of such notes should be indicated by showing them as a separate item. Notes past due should be indicated. On a Balance Sheet made for credit purposes, it may be desirable to show the notes past due under a separate classification. This method of classifying the notes receivable is shown in Illustration No. 84.

Sometimes notes received from customers are discounted at banks. In this case the company offering the notes for discount is required to endorse them, and thus it becomes contingently liable on these notes. This contingent liability must be shown on the Balance Sheet. The method of showing it is explained in Chapter L. When the amount of the notes receivable shown on the Balance Sheet is very small in comparison with the amounts shown on previous Balance Sheets, it is an indication of the probability that notes have been discounted. A careful investigation should be made to determine whether this is the case.

In most businesses, the amount of the notes receivable should be small in comparison with the amount of the accounts receivable. If the amount of the notes receivable is large, it may indicate that notes have been taken in payment of overdue accounts. In some businesses, however, where notes are taken in payment of merchandise sold at time of sale, a large item of notes receivable is to be expected.

Accounts Receivable

The accounts receivable should be classified to show the accounts:

(a) Due from customers for merchandise.

(b) Due from employees for advances made to them.

(c) Due from subsidiary companies or branches for merchandise shipped to them or for advances made to them.

There are two reasons why this classification is desirable:

1. If customers do not pay their accounts, collection can usually be secured from them by legal process, while it is usually not expedient to bring legal action against employees or subsidiary companies.

2. In determining the ratio of accounts receivable outstanding to sales, the purpose of which will be discussed in Chapter LIII, it is necessary that only the accounts receivable arising from sales be used.

Past due accounts should be stated separately from the accounts receivable not yet due. In making the Balance Sheet for credit purposes it may be desirable to classify the current assets so as to show both past due accounts and past due notes separately from those not yet due. In this case, the current assets may be shown as follows:

Current Assets

QUICK:		
Cash	....	
Notes Receivable Not Due .	....	
Accounts Receivable Not Due	....	
Inventories	....	....
SLOW:		
Notes Receivable Past Due .	....	
Accounts Receivable Past Due	....	....
Total Current Assets. . .		....

Business firms sometimes discount their accounts receivable. During the past few years companies have been organized which discount accounts receivable in the same manner in which banks discount notes receivable, and business firms which are much in need of cash make use of their services. When a firm discounts its accounts receivable, it is contingently liable for their payment in the same manner in which it is contingently liable for the notes discounted. This contingent liability must be shown on the Balance Sheet. The method of showing it is indicated by Illustration No. 84.

All accounts ascertained to be worthless should be charged off the books and not shown on the Balance Sheet. Adequate provision for probable losses on the remaining accounts should be made by a reserve for bad debts, and the amount of this reserve should be shown on the Balance Sheet as a deduction from accounts receivable.

Inventories

On the Balance Sheet of a trading concern only the item of finished goods will be shown under "Inventory." On the Balance Sheet of a manufacturing concern, there will appear the three items of raw materials, goods in process and finished goods. In connection with all inventories, it is necessary that careful attention be paid to three things: (1) quantity, (2) quality, (3) price.

With reference to quantity, only the commodities to which the business has full and valid title should be included in the inventories. Goods which have been received on consignment should not be included. On the other hand, goods which have been shipped on consignment, but which have not yet been sold, should be included since the title to them is still vested in the consignor.

Only such goods should be included in the inventory which are of such quality that they have some salable value. Goods which have deterioriated to such an extent that they can be no longer offered for sale, or which have become obsolete, should not be included. The quality of the goods must be considered also in determining the price at which they should be inventoried. Although they may still have some salable value, this may be much below their original value.

All inventories should be valued at cost or market price whichever is the lower. By cost is meant the invoice price plus all expenditures incurred in placing the commodity in a condition to be sold. For instance, the freight, drayage and unpacking cost may be added to the invoice price. By market price is meant the present cost to replace the article—not the price at which it may be sold. It may be difficult to determine the market price of goods in process. The proper rule to follow is to determine the cost to replace the goods in their present stage of manufacturing, and if this is less than their present cost, replacement cost should be taken.

It is especially important that the inventories be stated accurately. On the Balance Sheets of many concerns the inventory represents fifty per cent of their current assets. It can easily be seen that if the inventory is stated incorrectly the financial condition of the firm will be materially affected.

Accrued Income

At the end of the fiscal period, there may be certain items of accrued income, such as interest on notes receivable due from customers, or interest on bank balances, which should be treated as assets on the Balance Sheet. Since such items are usually due and payable within a relatively short time, they may be shown as current assets.

Investments

Many companies own stocks or bonds of other companies or bonds of the United States Government. Although such stocks or bonds may be readily salable, it is usually not the intention of the company to sell them in the near future. It is better, therefore, to exclude them from current assets and to show them under the separate heading of "investments" or "securities." Sometimes notes held against officers of the company or subsidiary companies are included under this heading instead of being shown under current assets. If it is not the intention of the company to collect such notes within the near future, this procedure is desirable. Stocks and bonds should be shown on the Balance Sheet at cost unless the present market value is below the cost price. In this case, they may be marked down to market value or a reserve may be set up for the difference between the cost and market price. In case of a slight fluctuation between the cost and market value, the investments may be shown at cost and the market price shown in brackets immediately after the title of the investment. To illustrate, if the preferred stock of the Braun Manufacturing Company which cost $20,000 has a market value of $21,000, this may be shown on the Balance Sheet as follows: Braun Manufacturing Co., preferred stock [market value, $21,000], $20,000.

Deferred Charges to Expense

Deferred charges to expense represent expenses paid during the current or preceding periods for services or supplies which will not be used until succeeding periods. Prepaid insurance taxes and interest are the most frequent examples of such charges. Inventories of supplies which are not to be sold but are to be used in the operation of the business may well be included under this heading. The expense incurred in the organization of a corporation and shown in the accounts as organization expenses should also be shown under this heading since it is desirable that they be written off within a relatively short time.

Fixed Assets

Furniture and Fixtures

Under this heading is shown the equipment used in the operation of the offices of the various departments of the business. Care should be taken to see that it is shown at cost with proper allowance made for depreciation. All repairs incurred in connection with such equipment should be charged as an expense of the period when made and should not be charged to the asset.

Machinery and Equipment

Machinery and equipment should be shown at cost less accrued depreciation. All repairs incurred on machinery and equipment should be treated as an expense of the period when made. Care must be taken to see that any mortgages or liens which may be outstanding against machinery or equipment are properly recorded.

Buildings

The value of the buildings owned by a business should be shown separately from the value of the land on which they are situated. The buildings are subject to depreciation, require repairs, and should be protected by insurance. The land is not subject to depreciation, requires no repairs, and, not being subject to destruction, need not be insured. If the buildings are shown as a separate item, it facilitates the determination of the adequacy of the depreciation allowed, the repairs made, and the insurance incurred.

Only the buildings to which a business has title should appear on its Balance Sheet. If mortgages are outstanding against the buildings, or bonds have been issued for which the building serves as security, these facts should be clearly indicated on the financial reports. The buildings should be shown at cost less accrued depreciation. Increases in the value of the buildings due to market conditions should not be reflected in the accounts or on the financial statements. As in the case of all other fixed assets, the repairs to buildings should be treated as an expense of the period in which they are made.

Land

Only the land to which a business has title should be shown on its Balance Sheet. Land is ordinarily not subject to depreciation. In some cases its value may be decreased because of market conditions, and it may be desirable to reflect this decrease in value in the accounts. Increase in value due to market conditions should be shown in the accounts only under exceptional conditions.

Intangible Assets

The intangible assets of most frequent occurrence are goodwill and patents. Sometimes goodwill is shown as one of the fixed assets, but it is preferable that it be shown under a separate heading. It may be subtracted from the surplus of the company, as indicated by the Balance Sheet prescribed by the Federal Reserve Board and shown on pages 734 and 735. Patents are also shown as fixed assets on some Balance Sheets, but it is preferable that they be shown separately. Fixed assets, such as land and buildings, are subject to more or less accurate valuation, while it is very difficult to obtain the value of such intangible assets as goodwill and patents. It is desirable, therefore, that the latter be shown separately from the fixed assets.

QUESTIONS FOR CLASS DISCUSSION

1

"It is the purpose of the Balance Sheet to show the financial condition of the business as of a certain date, and it is the purpose of the Statement of Profit and Loss to show the result of the operations of the business for a certain period of time." Explain what is required if these statements are to accomplish these purposes.

2

The Balance Sheet of the Jones Manufacturing Company shows the following items:

Cash on Hand	$2,640.00
Cash in Bank	950.00

Does this represent a normal condition? What reasons can you give as a probable cause of this condition?

3

The Balance Sheet of the Beaver Construction Company shows:

Cash in Bank	$3,000.00
Petty Cash	23.81

From the appearance of these items can you explain the method which this company employs in the handling of the Petty Cash?

4

The Balance Sheet of the Western Manufacturing Company shows the item "Cash—$16,650.00." An examination shows that this item includes the following:

(a) Checks received from customers which have been returned as "dishonored"	$ 850.00
(b) I. O. U.'s of employees	300.00
(c) Stamps held in the cash drawer . . .	30.00
(d) Notes of customers due but not yet presented for payment	800.00
(e) Currency in cash drawer	25.00
(f) Cash in the hands of branches which is held by them permanently as working funds	2,000.00
(g) Cash in the bank for which checks have been issued but not yet presented	8,460.00

Explain how you would show these items on the Balance Sheet.

6

The Baker Manufacturing Company has discounted $5,000.00 of notes of customers at its local bank. Explain how these should be shown on the Balance Sheet of the company.

7

Explain and illustrate the method of classifying accounts receivable on the Balance Sheet.

8

An analysis of the accounts receivable of the Bleeker Milling Company shows the following result:

Accounts Receivable, not yet due . . .	$10,000.00
Accounts Receivable, 30 days past due .	3,000.00
Accounts Receivable, 60 days past due .	2,000.00
Accounts Receivable, 90 days past due .	1,000.00

Explain how you would show the accounts receivable of the company on its Balance Sheet. Of what significance is the classification of the accounts to show the length of time past due?

9

An examination of the stock in the workrooms of the Plimpton Press shows the following:

(a) Paper and ink to be used for printing purposes	$40,000.00
(b) Books in process of manufacture . .	20,000.00
(c) Books completed, but not yet invoiced to customers	12,000.00
(d) Books invoiced to customers but not yet paid for by them	6,000.00
(e) Books invoiced to customers for which payment has been received . . .	8,000.00

Explain how these various items would be treated in the accounts and on the financial reports of the company.

10

An examination of the records of the Chicago Wholesale Company shows the following:

(a) Merchandise on hand for which invoices have not yet been received .	$2,000.00
(b) Merchandise received on consignment from other companies	5,000.00

(c) Merchandise shipped to other companies to be sold on consignment .	6,000.00
(d) Orders received from customers for future delivery but which have not yet been filled	4,000.00
(e) Merchandise for which the company has been billed, but which has not been received by it	1,000.00
(f) Merchandise sold and paid for, but held for later delivery at the request of the purchaser	1,500.00

Explain how you would treat each of these items in preparing the inventory for this company.

11

An examination of the inventory of the Walworth Manufacturing Company shows numerous articles which have been on hand for a number of years and of which no sales have been made for the past two years. Explain how these articles should be valued in taking the inventory.

12

In the inventory of this company there are found some articles which cost \$2.00 to manufacture, but which can now be produced at \$1.80. There are other items which it cost \$2.00 to manufacture, but which it would now cost \$2.25 to produce. Explain how these items should be shown on the Balance Sheet of the company.

13

Explain the importance of accrued income and its classification in drawing up a Balance Sheet. In connection with what assets would you expect accrued income to arise?

14

The Stone Manufacturing Company owns Liberty Bonds which cost \$100.00 each. Their present market value is \$98.00. How would you show these bonds on the Balance Sheet of the Company?

15

O. O. Lahman shows on the Balance Sheet of his company the following item: Land and Buildings, \$15,000.00. This represents the cost of the property in which he conducts his business when it was purchased five years ago. Explain how you would change this item on the Balance Sheet.

16

The Dodge Steel Company shows on its Balance Sheet the following item: Land, $19,000.00.

Investigation shows that this represents land purchased for $44,000.00 against which a mortgage of $25,000.00 is outstanding. What changes would you suggest?

17

What is the preferable method of showing such items as Patents and Goodwill on the Balance Sheet?

LABORATORY MATERIAL

Exercise No. 140

The Walworth Manufacturing Company manufactures valves and plumbers' supplies. It has ten branches through which it markets its goods. It has sales agencies which sell its goods on a commission, and it acts as agent for five other companies, receiving a commission for its services. It carries in stock the goods of the companies which it represents on a commission basis, and its goods are carried by its agents. The branches all carry a stock of merchandise provided by the factory. When these goods are shipped to the branch, they are entered on the records at ten per cent above factory cost. The branches purchase some merchandise from outside vendors which they carry in stock. An examination of the merchandise which has been made by the Accounting Department in December, 1920, shows the following:

(a) That there is a considerable quantity of merchandise at both the branches and the factory which has been carried in stock for several years. Some of it is obsolete and has no sale value in its present form. Some of it is very slow-moving, the turnover being once in two years. Other material is found to have a turnover of twice a year. The normal turnover of the up-to-date stock of the company is four times a year.

(b) That the market price of a large part of the merchandise, due to the industrial depression, is below its purchase or production cost.

The Company plans to take a physical inventory of all the stock at both the factory and the branches as of December 31, 1920. The President requests you to prepare instructions for the use of the employees who are to be employed in taking this inventory. He requests that these instructions state clearly the following:

1. The merchandise which is to be included in the inventory.

2. The merchandise which is to be excluded from the inventory.

3. The classification of the inventory desired for purposes of pricing.

(*Concluded on page 768*)

4. The price to be used in determining the value of each class.

5. The method of obtaining this price.

Instructions: Write a report addressed to the President of the company giving the instructions which he desires. Be sure that these instructions are sufficiently clear and complete to be comprehended by the employees who will be engaged in the inventory taking.

Exercise No. 141

You are requested by the Belding Manufacturing Company to prepare a classification of accounts to be maintained by the company. After a thorough study of its organization and operations you prepare a classification of accounts for its use. The following are the asset accounts which you recommend:

Current Assets

Cash—First National Bank and Petty Cash.

Notes Receivable—Customers and Employees.

Accounts Receivable.

Merchandise Inventory—Raw Materials, Goods in Process, Finished Goods, Goods in Hands of Consignees.

Accrued Income.

Investments

Bachrach Manufacturing Company, Preferred Stock, United States Liberty Bonds.

Deferred Charges

Organization Expense, Unexpired Insurance, Prepaid Interest.

Fixed Assets

Furniture and Fixtures, Reserve for Depreciation of Furniture and Fixtures, Machinery and Equipment, Reserve for Depreciation of Equipment and Machinery, Buildings, Reserve for Depreciation of Buildings, Land.

Intangible Assets

Goodwill, Patents.

Instructions: Write a report to the Belding Manufacturing Company explaining the purpose of each of the asset accounts given in the classification, and state the operation of the account with sufficient clearness to enable the bookkeeping employees of the company to operate it properly.

Exercise No. 142

The Trial Balance of the Modern Manufacturing Company taken on December 31, 1920, is as follows:

Plant and Machinery . . .	$ 70,000.00	
Purchases	76,000.00	
Sales		$190,000.00
Stock on Hand, December 31, 1919	38,000.00	
Labor	48,000.00	
Administrative Salaries . .	6,000.00	
Traveling Expenses . . .	3,000.00	
Interest	1,200.00	
Stationery and Printing . .	2,400.00	
Rents and Taxes	7,000.00	
Discounts and Allowances .	2,500.00	
Fuel	6,000.00	
Insurance (one year from July 1, 1920)	2,300.00	
Freight	3,000.00	
General Expenses	1,200.00	
Bank Overdraft		2,000.00
Creditors		16,000.00
Accounts Receivable . . .	50,000.00	
Rent of Factory Building .		3,000.00
Cash on Hand	100.00	
Loans (A)	14,300.00	
Capital A		80,000.00
Capital B		40,000.00

The following information is obtained:

1. Stock on hand, December 31, 1920, $46,000.00.
2. Estimated depreciation on plant and machinery, 10%.
3. Estimated loss on bad debts, 1% of sales.
4. No accruals are to be taken into account.
5. Rents, taxes and insurance are to be considered two-thirds manufacturing expense and one-third administrative expense.
6. Profits are to be distributed two-thirds to A and one-third to B.

Instructions: Prepare a Balance Sheet and a Statement of Profit and Loss as of December 31, 1920.

CHAPTER LIII

ANALYSIS OF FINANCIAL STATEMENTS—Continued
LIABILITIES

Notes Payable

Notes payable should be classified to show the notes (a) due to merchandise creditors; (b) due to banks; (c) due to note brokers; (d) due to others.

This classification is desirable in order to indicate the method by which a business finances its operations. In many businesses, a large item of notes due to creditors is not desirable, since this may indicate the issuance of notes in payment of overdue accounts; but in those businesses in which it is customary to issue notes in payment of merchandise, it is expected that the Balance Sheet will show a large item of notes issued to merchandise creditors. Nearly all business firms borrow from banks to some extent. When a liberal rate of discount is offered on purchases, it is often profitable to borrow from the bank and take advantage of the discount. A large number of notes due to banks with a small corresponding amount of notes due to creditors may indicate sound financing.

During recent years many firms have sold notes to note brokers. Banks formerly looked with disfavor on this procedure since they thought their customers should borrow from them. During recent years they have come to regard this practice with greater favor, due, probably, to the fact that the note brokers borrow from the banks the funds they use in carrying on their business, and, consequently, the banks do not lose because of the fact that their customers borrow from the note brokers.

Notes issued to officers of the company may indicate that the business has some difficulty in obtaining funds and that the officers are forced to come to its rescue. In any case, it is desirable that the amount of such notes be shown separately.

Accounts Payable

Accounts payable should be classified to show the accounts: (a) due to merchandise creditors; (b) due to others.

The reason for this classification should be apparent from the discussion of the classification of notes payable. If any of the accounts payable are secured by the pledging of assets as collateral, this should be shown on the Balance Sheet.

Accrued Liabilities

Accrued liabilities may arise because of wages, interest and similar items which are accrued, but not yet due. Of recent years accrued taxes are an item of considerable importance which must be shown as a liability. Since such items need to be paid within the near future, they should be shown as current liabilities.

Bonds Payable

Bonds payable should be shown as a liability and not as a deduction from the asset on which they are a lien. Some businesses subtract the bonds payable from the asset which serves as a security for them and show the equity as an asset. This method does not show the true financial condition of the business. When serial bonds are issued, which provide for the payment of a certain amount each year, the amount falling due within the year should be shown as a current liability.

Mortgages Payable

Mortgages payable, like bonds payable, should be shown as a liability and not as a deduction from the asset on which they are a lien. It is well to indicate on the Balance Sheet the particular assets which serve as security for the mortgages payable.

Contingent Liabilities

Full information should be shown on the Balance Sheet with reference to all contingent liabilities. Such contingent liabilities may arise because of the notes receivable discounted, accounts receivable sold, or suits pending which may result in a judgment against the firm. Where there is a considerable probability of an adverse decision of the pending suit, it is desirable that a reserve be set up to provide for the liability arising from this decision. Contingent liabilities may be shown by means of footnotes which explain their nature.

Capital

The capital of a corporation may be represented by three items:

(a) The capital stock outstanding.
(b) The accumulated surplus.
(c) Reserves which represent appropriated surplus.

Sufficient discussion has been given in previous chapters with reference to capital stock and surplus. It is necessary to give a brief discussion of the reserves which may appear on the Balance Sheet and to indicate the kind of reserves which may be considered as a part of the capital or proprietorship.

Reserves

On the Balance Sheets of corporations three kinds of items will be found under the title of reserves:

1. There are shown "reserves" for taxes and similar items which are not reserves in the proper sense and should rather be termed accrued liabilities and shown under current liabilities.

2. There are reserves which represent the estimated decrease in the value of assets, such as reserves for depreciation and reserves for bad debts. These should be shown as deductions from the assets to which they pertain. These reserves may properly be called *valuation* reserves, since they are used in determining the value of certain assets.

3. There are reserves which represent surplus that has been set aside for a certain length of time for a particular purpose and which will later be carried back into the Surplus account. Since these reserves will later be carried back to Surplus, they may be considered as a part of the surplus, and therefore a part of the proprietorship of the business. The reserve of this kind which is of the most frequent occurrence is the Reserve for Sinking Fund. To illustrate its operation, a typical case may be taken:

The XY Corporation issues \$20,000.00 in bonds, payable in twenty years, with a provision that \$1,000.00 shall be carried to Reserve for Sinking Fund each year. At the time the bonds are issued the following entry will be made:

	Cash	20,000.00	
	Bonds Payable		20,000.00
	To record the sale of bonds for cash.		

At the end of each year the following entry will be made:

	Profit and Loss	1,000.00	
	Reserve for Sinking Fund		1,000.00
	To record the annual credit to sinking fund in accordance with the terms of the mortgage.		

At the end of twenty years, the Bonds Payable Account and the Reserve for Sinking Fund will appear as follows:

Bonds Payable

						20,000.00

Reserve for Sinking Fund

						20,000.00

When the bonds are paid, the following entry will be made:

	Bonds Payable	20,000.00	
	Cash		20,000.00
	To record the payment of bonds.		

Since the bonds are now paid, there is no further use of the reserve for sinking fund, and the $20,000.00 shown on the Reserve for Sinking Fund account will be carried to the Surplus account by the following entry:

	Reserve for Sinking Fund	20,000.00	
	Surplus		20,000.00
	To record the transfer of the reserve for sinking fund to surplus.		

Since the Reserve for Sinking Fund eventually goes back into Surplus, the balance of this account throughout the twenty years may be regarded as appropriated surplus and shown as part of the net worth of the business. Other reserves which are of the same nature as the Reserve for Sinking Fund are "Reserve for Contingencies" and "Reserve for Additions."

The distinction between a *proprietorship* reserve, such as the Reserve for Sinking Fund, and a *valuation* reserve, such as the Reserve for Depreciation of Machinery, can be seen by a comparison of the foregoing illustration with the following:

Machinery costing $11,000.00 is estimated to have a life of ten years and a scrap value of $1,000.00. It is decided to use the straight line method of depreciation and write off $1,000.00 a year. When the machinery is purchased the following entry will be made:

	Machinery	11,000.00	
	Accounts Payable		11,000.00
	To record the purchase of machinery for Departments A and B.		

At the end of each year the following entry will be made:

	Manufacturing Expense	1,000 00	
	Reserve for Depreciation of Machinery		1,000 00
	To record the yearly charge for depreciation.		

At the end of the ten years the Machinery account and the Reserve for Depreciation of Machinery account will appear as follows:

Machinery

			11,000 00				

Reserve for Depreciation of Machinery

							10,000 00

If the machinery is sold at the end of the ten years at its estimated scrap value, the following entry will be made:

	Accounts Receivable	1,000 00	
	Reserve for Depreciation of Machinery	10,000 00	
	Machinery		11,000 00
	To record the sale of machinery at scrap value.		

The last entry will close the Machinery account and the Reserve for Depreciation of Machinery account. When the machinery is disposed of, the reserve account also disappears. Its purpose during the life of the machinery was only to record the estimated decrease of its value. The proper method of showing it on the Balance Sheet, therefore, is as a deduction from the balance of the Machinery account.

The Statement of Profit and Loss

The information shown on the Statement of Profit and Loss is usually classified under the following heads:

1. Sales.
2. Cost of Goods Sold.
3. Operating Expenses.
4. Other Income.
5. Other Expenses.

The information which should be shown under each of these headings will be discussed briefly.

Sales

Under this heading should be included the selling price of all the commodities or services to which title has passed to the vendee. There should not be included under this heading goods shipped on consignment or goods for which orders have been received, but to which title has not passed. The test as to whether the title has passed should be whether a legally enforceable claim exists against the vendee for the value of the goods. All goods returned and all allowances made to customers should be deducted from the gross sales to determine the net returns from sales.

Cost of Goods Sold

Under this heading should be shown the cost of the goods which are reported as sales under the preceding heading. By cost, as used in this sense, is meant all expenditures incurred up to the time when the goods are put into condition to be offered for sale. The expenses incurred in making the sale and in delivering the goods to the customer should be shown as selling expenses and not as a part of the cost of the goods sold. One of the principal reasons for this classification is that there is usually one executive who is responsible for the cost of the goods and placing them at the disposal of the selling department, and there is another executive who is responsible for the selling of the goods and for their delivery to the customer. In order to judge the efficiency of these executives, it is necessary that the expenditures incurred by each should be shown separately. In many cases, separate executives are responsible for the delivery of the goods and for the sale of the goods; in this case, Selling Expense and Delivery Expense should be shown separately so as to better judge the efficiency of these two executives.

Operating Expenses

Under this heading should be shown all the expenses incurred in connection with the selling and administrative functions of the business. Not only the expenses paid, but those also which are accrued should be included. Care must be taken to include among the operating expenses the estimated depreciation on the fixed assets of the business.

The selling and administrative expenses should be classified in such a way as to place responsibility on the executives of the company who are responsible for their incurrence. The extent to which they must be classified will depend upon the organization of the particular business. In many cases there will be certain miscellaneous items of expense which it will be difficult to put under any proper classification. Such expenses are usually shown under the heading of "Miscellaneous" or "General Expense." If this item appears to be unduly large, an analysis should be made to determine the responsibility for these expenses. It is unwise to use this account as a "dumping ground" for all kinds of expenses.

Other Income

Under this heading will be shown income which is derived from sources other than the regular operations of the business. For instance, in the case of a mercantile firm, interest on bank balances and notes receivable, and profit arising from the sale of fixed assets, will appear under this heading. Such income is shown separately in order that it may be possible to determine the profit arising from the regular operations of the business independently of the profit secured from miscellaneous sources.

Other Expenses

Under this heading will be shown any expenses incurred other than those which are the result of carrying on the regular operations of the business. Losses arising from fire, expenses incurred in buying the stocks or bonds of other companies, and similar items will appear under this heading. These items of expense should be shown separately from the operating expenses for two reasons:

1. They are not regular expenses of the business, and, if they are included in the operating expenses, they will prevent accurate comparisons between operating expenses of different periods.

2. The executives of the business who are responsible for the operating expenses, such as selling expense and administrative expense, are not ordinarily responsible for the other expenses. Consequently, the inclusion of any items under operating expense which do not relate to this group of expenses will not only confuse the reader of the Statement of Profit and Loss as to the placing of responsibility for the incurrence of these expenses, but will also add to the difficulty of the executives themselves in checking increases in expenses.

QUESTIONS FOR CLASS DISCUSSION

1

The Brake Shoe Corporation owes in notes, according to its Balance Sheet, $3,315.00. No further information is given. Ordinarily is this sufficient information? Why?

2

Explain the possible items that might be included in the total amount of notes payable. What is the desirable relation of each of the groups of notes to the others?

3

Explain the possible classification of accounts payable and the reason why this classification is desirable.

The following information appears on the Balance Sheet of the Madison Company:

Notes due merchandise creditors	$ 4,000.00
Notes due to banks	16,250.00
Accounts due merchandise creditors . .	7,500.00

What conclusions as to the financial policy of the company may be drawn from this information?

5

Why is the fact that the payment of accrued liabilities is not yet due not a legitimate reason for omitting such items from the Balance Sheet?

6

The Balance Sheet of the Carlton Manufacturing Company shows no fixed liabilities. The Statement of Profit and Loss of this company shows the following item:

Interest on Bonds Payable $900.00

What would you infer from these two statements?

7

A company has had certain notes receivable discounted at the bank. Of what importance is this to the creditors of the company? In what way will this information be shown on the Balance Sheet?

8

Explain and illustrate the difference between a *proprietorship* reserve and a *valuation* reserve.

9

On the Balance Sheet of the Russell Company the following items appear:

Reserve for Taxes	$ 350.00
Reserve for Loss on Bad Debts	590.00
Reserve for Sinking Fund	12,000.00
Reserve for Depreciation of Buildings . .	2,500.00

Explain the meaning of each of these items and state how each should be shown on the Balance Sheet.

10

Explain and illustrate the items which enter into the cost of goods sold in (1) a retail store, (2) a wholesale business, and (3) a manufacturing company.

11

"The expenses incurred in making a sale and delivering the goods to the customer should be shown as selling expenses and not as a part of the cost of goods sold." Explain why this is true.

12

On the Statement of Profit and Loss of the Field Retail Store the operating expenses are listed as follows: Salaries, Rent, Depreciation, Heat and Light, Taxes, Interest, Supplies, Insurance, Miscellaneous. Is this a satisfactory classification of expense? In answering, explain the reason for your decision.

13

Explain and illustrate the meaning of non-operating income and state why it is desirable to show it separate from operating income.

14

Explain and illustrate the meaning of non-operating expense and state why it is desirable to show it separate from operating expense.

15

Explain and illustrate items which may be regarded as non-operating income in one business and operating income in another business.

LABORATORY MATERIAL

Exercise No. 143

The classification of accounts prepared for the Belding Manufacturing Company contains in addition to the asset accounts, given in Exercise No. 141, the following:

Current Liabilities:

Notes Payable to Merchandise Creditors, Notes Payable to Banks, Notes Payable to Others, Accounts Payable, Accrued Liabilities.

Fixed Liabilities:

Mortgages Payable, Bonds Payable.

Proprietorship Accounts:

Preferred Stock, Common Stock, Reserve for Sinking Fund, Surplus.

Income Accounts

Operating:

Sales.

Non-Operating:

Interest on Notes Receivable, Purchase Discount.

Expense Accounts

Operating:

Cost of Sales—with appropriate subdivisions, Selling—with appropriate subdivisions, Administrative—with appropriate subdivisions.

Non-Operating:

Interest, Sales Discount.

Instructions: Write a report to the Belding Manufacturing Company explaining the purpose of each of the accounts given in the classification, and state the operation of the account with sufficient clearness to enable the bookkeeping employees of the company to operate it properly. In the report indicate the divisions of the expense accounts which you think to be desirable.

Exercise No. 144

The Independent Manufacturing Company submits the following Balance Sheet to its bank:

INDEPENDENT MANUFACTURING CO., BALANCE SHEET, DECEMBER 31, 1920

Assets		
Cash	$ 10,000.00	
Notes Receivable	8,000.00	
Accounts Receivable	20,000.00	
Inventories	180,000.00	
Stocks and Bonds	40,000.00	
Unexpired Insurance	800.00	
Organization Expenses	16,000.00	
Office Equipment	7,500.00	
Machinery and Equipment	80,000.00	
Land and Buildings	50,000.00	
Goodwill and Patents	50,000.00	
Total Assets		$462,300.00
Liabilities		
Capital	$200,000.00	
Bonds Payable	20,000.00	
Notes Payable	100,000.00	
Accounts Payable	50,000.00	
Reserve for Taxes	5,000.00	
Surplus	87,300.00	
Total Liabilities		$462,300.00

You are requested by the bank to examine the records of the company and make any changes in its Balance Sheet which you think necessary. The examination discloses the following:

1. **Cash** represents the following:
   (1) In the cash drawer: Currency, $250.00; I. O. U.'s of employees, $150.00; past due note, $100.00.
   (2) In the hands of branches, $1,500.00.
   (3) In the bank: $3,000.00 on time deposit, not subject to withdrawal for four months; $5,000.00 on drawing account, against which there are outstanding checks amounting to $1,000.00. These checks have been issued in payment of accounts payable, but have not been entered in the accounting records.

2. **Notes Receivable** represent the following:
   (1) Notes of customers not due, $5,000.00.
   (2) Notes of customers past due, $2,000.00.
   (3) Notes of officers, $1,000.00.

All the notes are non-interest bearing.

3. **Accounts Receivable** represent the following:
   (1) Accounts of customers not due, $16,000.00.
   (2) Accounts of customers past due, $4,000.00.

No reserve has been provided for bad debts. You estimate that a reserve equal to 5% of the outstanding book accounts should be set up.

4. **Inventories** represent the following:
   (1) Raw Materials, $40,000.00.
   (2) Goods in Process, $50,000.00.
   (3) Finished Goods, $90,000.00.

The finished goods include $10,000.00 of merchandise which has been received from consignors. The remainder of the finished goods has been valued at selling price instead of cost. The average gross profit of the company is 25%. The raw materials are valued at market price which is 10% above the cost price. The goods in process have had 5% added to their factory cost for selling and administrative expenses.

5. **Stocks and bonds** represent the following:
   (1) Preferred stock of the X Manufacturing Company which cost $18,000.00 and which now has a market value of $20,000.00
   (2) Common stock of the Ward Mercantile Company which cost $20,000.00 and now has a market value of $15,000.00.

6. **Unexpired Insurance** represents the following:
   (1) The unexpired portion of five policies of insurance now in force. You find that the unexpired portion has been correctly calculated.

7. **Organization Expenses** represent the following:
   (1) The expenditures incurred in organizing the corporation five years ago. The amount as shown on the Balance Sheet represents the original cost. The amount has not been reduced since the time of the original entry.

8. **Office Equipment** represents the following:
   (1) The original cost of office equipment purchased five years ago. You estimate the yearly depreciation to be 10%.

9. **Machinery and Equipment** represents the following:
   (1) Cost of machinery and equipment purchased during the past five years. You estimate that a reserve for depreciation equal to 60% of its book value should be set up.

10. **Land and Buildings** represent the following:
    (1) Land purchased five years ago at a cost of $20,000.00.
    (2) Buildings constructed five years ago at a cost of $20,000.00.

You find that three years ago the land was appraised at $25,000.00 and its value written up to that amount. You also find that $5,000.00 spent in painting and roofing the building during the past year was charged to the Building account. You estimate the depreciation on the buildings to be 5% a year.

11. **Goodwill and Patents** represent the following:
    (1) Patents granted by the National Government to the company on certain machines which it manufactures. The cost of obtaining the patents including the cost of experimental work was $1,500.00. One-fifth of the life of the patents has expired. At the time the patents were obtained they were entered on the books at $20,000.00.
    (2) Goodwill of $30,000.00 which was entered on the records six months ago at the direction of the President of the Company.

12. **Capital** represents the following:
    (1) Preferred Stock Authorized, $200,000.00.
    (2) Common Stock Authorized, $100,000.00.
    (3) Treasury Stock, Preferred, $100,000.00.

13. **Bonds Payable** represent the following:
    (1) Twenty-year 6% bonds issued five years ago and secured by a mortgage on the land and buildings.

14. **Notes Payable** represent the following:
    (1) Notes payable to merchandise creditors, $60,000.00.
    (2) Notes payable to banks, $20,000.00.
    (3) Notes payable to officers, $20,000.00.

15. **Accounts Payable** represent the following:
    (1) Accounts payable to merchandise creditors, $49,000.00.
    (2) Accrued wages, $1,000.00.

16. **Reserve for Taxes** represents the following:
    (1) The state taxes accrued for the year. You estimate that an additional $100.00 should be added to this amount.

17. **Surplus** represents the following:
    (1) Accumulated earnings.
    (2) Adjustments made for goodwill, patents and land as explained in the foregoing statements.

Instructions: 1. Prepare a Balance Sheet for the Independent Manufacturing Company taking into consideration all the information discovered by your investigation.

2. Write a report addressed to the President of the bank explaining each change you have made and the reason for making it.

CHAPTER LIV

ANALYSIS OF FINANCIAL STATEMENTS—Continued

The Value of Comparisons

In the two preceding chapters the items which usually appear on the Balance Sheet and the Statement of Profit and Loss have been discussed and the method of interpreting each of these items has been explained. When the Balance Sheet and the Statement of Profit and Loss are properly drawn up and the items which appear on them correctly stated, the next question is how the financial condition of the business for which these statements are prepared may be determined by a consideration of them.

A very little consideration of financial reports will show that in order to arrive at any estimate of financial condition it becomes necessary to make comparisons. Any one item taken by itself has little significance. For instance, the item of Cash on the Balance Sheet of the King Manufacturing Company is $20,000.00. This of itself indicates nothing with reference to the financial condition of the company. If the company is a small one doing a small volume of business, this may be too large an amount of cash for it to carry and may indicate poor management, especially if the company has interest-bearing obligations outstanding. For a somewhat larger company, this amount may represent a normal cash balance and may indicate proper financial mangement, especilly if it is found to be the average balance of the company. For a very large company, such a cash balance would be much too small and would probably indicate poor management and a precarious financial condition.

To determine the size of the cash balance which the company should carry and hence to judge as to the adequacy of the present balance, it is necessary to determine two things:

1. The volume of business performed by the company and its immediate needs for cash. This necessitates a consideration of the asset and liability items appearing on the Balance Sheet and the income and expense items appearing on the Statement of Profit and Loss.

2. The cash balance which has been maintained in the past and the adequacy of this balance. This necessitates a consideration of past financial statements.

The consideration of any other item which appears on the Balance Sheet and Statement of Profit and Loss will involve the same procedure. For instance, the net profit for the year, as shown by the Balance Sheet of the King Manufacturing Company, is $400,000.00. The first thought may be that this must be a favorable indication; that the company must be in a strong financial condition to earn such a large net profit. Investigation of the Statements of Profit and Loss for the three preceding years may show, however, that the company during these years made an average profit of $800,000.00 a year, and an investigation of the Balance Sheet may show that the outstanding capital stock of the company is $10,000,000.00; hence the yearly profits represent 4% on the stock. After this investigation, it will probably be concluded that the past year has not been a profitable one.

Any statistical data, in order to be of the highest significance, must be presented in such a way as to show a comparison or relationship between facts. This applies to the facts shown by the Balance Sheet, and it applies even more to the statistics regarding the operations of the business, shown by the Statement of Profit and Loss. It is the purpose of the present chapter to discuss the most important of the comparisons which can be made in connection with these two financial statements.

Classification of Possible Comparisons

The comparisons which may be made with reference to the Balance Sheet and the Statement of Profit and Loss may be classified as follows:

1. Comparison of one item with another on the Balance Sheet. For instance, notes receivable may be compared with accounts receivable.

2. Comparison of an item on one Balance Sheet with the same item on another Balance Sheet. For instance, the inventory as shown by the Balance Sheet at the beginning of the year may be compared with the inventory at the end of the year. Such comparisons of the same items are usually made by means of a comparative Balance Sheet.

3. Comparison of one item with another on the same Statement of Profit and Loss. To illustrate, the selling expenses for the year may be compared with the sales for the year and the percentage determined.

4. Comparison of an item on one Statement of Profit and Loss with the same item on another Statement of Profit and Loss. To

illustrate, the sales of one year as shown by the Statement of Profit and Loss of that year may be compared with the sales of the following year as shown by the Statement of Profit and Loss of the preceding year. Such comparisons are usually made by means of the comparative Statement of Profit and Loss.

5. Comparison of information shown on a comparative Balance Sheet with information shown on a relative comparative Statement of Profit and Loss. For instance, the increase in inventory as shown by the comparative Balance Sheet may be compared with the increase of sales shown by the comparative Statement of Profit and Loss.

Each of these classes of comparisons will be discussed.

Comparison of Items on a Particular Balance Sheet

That the discussion of the comparisons which is to be given in the following paragraphs may be made concrete, typical financial statements will be used as illustrations. For the discussion of the comparison of items of the Balance Sheet, Illustration No. 88 will be used:

CHICAGO WHOLESALE COMPANY

Balance Sheet, December 31, 1917

CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash	$ 10,000		Notes Payable	$130,000	
Notes Receivable	54,000		Accounts Payable	50,000	
Accounts Rec.	46,000				
Mdse. Inventory	270,000		Total Current Liabilities		$180,000
Total Current Assets		$380,000	FIXED LIABILITIES:		
FIXED ASSETS:			Mortgages Payable	30,000	
Land	70,000		Bonds Payable	30,000	
Building	42,000				
Office and Store Equipment	11,000		Total Fixed Liabilities		60,000
			PROPRIETORSHIP:		
			Capital	250,000	
Total Fixed Assets		123,000	Surplus	40,000	
Deferred Charges		7,000			
Goodwill		20,000	Total Proprietorship		290,000
Total Assets		$530,000	Total Liabilities and Proprietorship		$530,000

Illustration No. 88—Balance Sheet, Chicago Wholesale Company

All of the financial statements which are given as illustrations in this chapter will be made as simple as possible so as to eliminate details and prevent confusion. The important comparisons which may be made with reference to the Balance Sheet shown in Illustration No. 88, are as follows:

1. **Ratio of current liabilities to current assets**

This ratio is exceedingly important since it is from the liquidation of the current assets that the funds must be obtained with which to pay the current liabilities. Since assets ofter shrink in value and liabilities never do, it is desirable that current assets shall always be materially larger than the current liabilities. Banks for a long time have insisted on a rule-of-thumb ratio of 2 to 1; that is, that the current assets shall be twice as large as the current liabilities. This is not a safe rule to follow arbitrarily since the ratio which would exist between the current assets and current liabilities will vary, depending upon the nature of the business and market and financial conditions. The insistence of bankers in the past upon this ratio indicates, however, their realization that the current assets of the business should always exceed by a considerable margin the current liabilities. As shown by Illustration No. 88, the current assets of the Chicago Wholesale Company amount to $380,000.00, and its current liabilities amount to $180,000.00. The ratio is slightly more than 2 to 1.

2. **Ratio of notes receivable to accounts receivable**

In most lines of business goods are sold on account, and notes are not received in payment at the time of sale. Consequently, it is expected that the accounts receivable will be considerably larger than the notes receivable. If a large item of notes receivable appears on the Balance Sheet of such businesses, it is an indication of the probability that overdue accounts have been settled by means of notes. Such a situation is especially apt to arise in times of financial stringency. There are, of course, some businesses which sell habitually on terms which provide for the taking of notes in payment. In such businesses it is expected that the item Notes Receivable will be larger than the item Accounts Receivable. In the Balance Sheet of the Chicago Wholesale Company, notes receivable are $8,000.00 more than accounts receivable. The terms of sale of this company should be determined in order to decide whether this excess of notes receivable over accounts receivable is justified.

3. **The ratio of notes payable to accounts payable**

In Illustration No. 88, notes payable are more than two-and-a-half times as large as accounts payable. In order to determine whether this is a desirable condition, it will be necessary to analyze the notes payable to show whether they have been issued to (a) Merchandise creditors; (b) Banks or note brokers; or (c) Others. If they have been issued to merchandise creditors at the time merchandise is purchased, or if they have been sold to note brokers or issued to banks in order to obtain funds with which to discount accounts payable, there is no objection to the excess of notes payable over accounts payable. If, however, they have been issued to merchandise creditors in payment of overdue accounts, or have been issued to officers or outsiders to obtain funds because the bank credit of the company is limited, an unfavorable financial condition is indicated.

4. Ratio of owned capital to borrowed capital

The total capital employed in the conduct of the Chicago Wholesale Company amounts to $530,000.00. Of this amount $290,000.00, or a little more than half, is provided by the stockholders of the company. This in itself indicates a satisfactory condition, but it would be of interest to compare this ratio with the same ratio at the end of preceding years to see whether the stockholders are increasing or decreasing their interest in the business. It is a wise and conservative policy for a corporation to use its accumulated profits as a basis for its expansion, and by this method the stockholders of the company gradually increase their equity in the business.

5. Ratio of capital to fixed assets

The fixed assets of the Chicago Wholesale Company including Goodwill amount to $143,000.00, and the capital supplied by the stockholders amounts to $290,000.00, or a little more than twice the amount of the fixed assets. This comparison taken by itself does not mean a great deal, but if it was made for several years, it shows whether there is a tendency to convert the investment of capital of the stockholders into fixed assets, and thereby rely on the creditors of the company to supply working capital, or whether there is the opposite tendency for the stockholders to supply an increasing amount of the working capital.

The latter tendency is undoubtedely the desirable one. If the stockholders supply a large part of the working capital, the corporation is not apt to be embarrassed in times of financial stringency; whereas, if they must rely at such times upon capital supplied by the creditors of the company, they may be hampered in their operations.

Comparison of Corresponding Items and Ratios on Different Balance Sheets

In order to interpret better the Balance Sheet of the Chicago Wholesale Company on December 31, 1917, as shown in Illustration No. 88, it will be compared with the Balance Sheet of the same company on December 31, 1916, as shown in Illustration No. 89.

CHICAGO WHOLESALE COMPANY
Balance Sheet, December 31, 1916

CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash	$ 12,000		Notes Payable	$ 20,000	
Notes Receivable	26,000		Accounts Payable	30,000	
Accounts Rec.	50,000		Total Current Liabilities		$ 50,000
Mdse. Inventory	140,000		FIXED LIABILITIES:		
Total Current Assets		$228,000	Mortgages Payable	20,000	
FIXED ASSETS:			Bonds Payable	20,000	
Land	60,000		Total Fixed Liabilities		40,000
Building	40,000		PROPRIETORSHIP:		
Office and Store Equipment	10,000		Capital	250,000	
Total Fixed Assets		110,000	Surplus	24,000	
Deferred Charges to Expense		6,000			274,000
Goodwill		20,000			
Total Assets		$364,000	Total Liabilities and Proprietorship		$364,000

Illustration No. 89—Balance Sheet, Chicago Wholesale Company, December 31, 1916

This comparison can be more easily made by showing these two Balance Sheets in comparative form, as illustrated by Illustration No. 90:

CHICAGO WHOLESALE COMPANY
Comparative Balance Sheet, December 31, 1916 and December 31, 1917

ASSETS	1916	1917	LIABILITIES & CAP.	1916	1917
Cash	12,000	10,000	Notes Payable	20,000	130,000
Notes Receivable	26,000	54,000	Accounts Payable	30,000	50,000
Accounts Receivable	50,000	46,000	Mortgage Payable	20,000	30,000
Mdse. Inventory	140,000	270,000	Bonds Payable	20,000	30,000
Land	60,000	70,000	Surplus	24,000	40,000
Building	40,000	42,000	Capital Stock	250,000	250,000
Office & Store Equip.	10,000	11,000			
Goodwill	20,000	20,000			
Deferred Charges to Expense	6,000	7,000			
	364,000	530,000		364,000	530,000

Illustration No. 90—Comparative Balance Sheet

A comparison may be made with reference to every item shown on a comparative Balance Sheet, and usually some benefit may be derived from this comparison. There are certain comparisons, however, which are of especial significance. With reference to the comparative Balance Sheet shown in Illustration No. 90, these comparisons are as follows:

1. It will be noticed that the notes receivable for the year 1917 are more than twice as large as in 1916. At the same time, the accounts receivable are smaller in 1917 than in 1916. Unless there has been a change in the terms of sale of the company, these two comparisons indicate an unfavorable condition. An increase in business will cause an increase in both the accounts receivable and notes receivable, but if notes receivable increase and the accounts receivable decrease, there is an indication that sales are being made to customers that are not paying promptly, and are giving notes in order to obtain extensions of credit. At least the facts shown on this comparative Balance Sheet would warrant a careful investigation to determine the reason for the condition.

2. Merchandise inventory of December 31, 1917, is almost twice as large as the inventory of December 31, 1916. There may be several reasons for this increase:

> (a) There may have been a large increase in the volume of business of the company which has necessitated the increase in inventory. The comparative Statement of Profit and Loss of the company will have to be consulted in order to determine if this is true.
>
> (b) A large amount of merchandise may have been purchased because of an anticipated increase in price or because of an estimated increase in business within the immediate future. Investigation will show whether this be true.
>
> (c) A large amount of unsalable goods may have been accumulated during the past year, or large inventories may have been purchased because of anticipated sales during the year which failed to materialize. A calculation of the merchandise turnover as shown by the comparative Statement of Profit and Loss will make it possible to determine whether this is true.

3. The Balance Sheet of December 31, 1917, shows an increase in the items of land, building and office and store equipment over

the items on the Balance Sheet of December 31, 1916. Such increases in the value of fixed assets may arise from the following sources:

(a) Additional assets may be purchased. If the actual or anticipated increase in business warrants such additions, it is proper that they be made.

(b) Repairs to the assets may be charged to the asset account instead of being charged to the expense accounts of the year. This procedure is of course highly improper since it overstates the assets and understates the expenses for the year.

(c) The assets may be appraised, and, on the basis of this revaluation, their value be increased. It is contrary to conservative accounting and management to show appreciation of fixed assets in the accounts or on the financial reports. Since these assets are not to be sold, but are to be used in the conduct of the business, the increase in their market value does not increase their efficiency, and, therefore, their value to the business is not increased.

A careful inspection should be made to determine the cause for the increases in fixed assets as shown on the comparative Balance Sheet of the Chicago Wholesale Company. An analysis of the Surplus account of the company and of the expense accounts for the year will assist in the determination of the cause of these increases.

4. Turning to the liability side of the comparative Balance Sheet, it will be noticed that the notes payable have greatly increased during the year. The amount outstanding on December 31, 1917, is six and one-half times the amount outstanding the year previous. The accounts payable have also increased, but not increased in proportion. As explained in connection with the Balance Sheet shown in Illustration No. 88, an analysis of the notes payable item to determine to whom the notes have been issued is desirable. If the notes have been issued to banks in order to obtain funds with which to discount merchandise invoices, good financial management is indicated. Whether this is true can be determined pretty readily by an inspection of the comparative Statement of Profit and Loss to see whether the purchases discount for the current year is larger than for the previous year. This, however,

will not be conclusive evidence and an analysis of the Notes Payable account should be made.

5. The mortgages payable and the bonds payable have both increased during the year. This increase is somewhat more than the increase in fixed assets during the year so that, even if the increase in fixed assets is found to be proper, it is indicated that some additional funds are being secured by means of liens on the fixed assets to use for working capital. Although this procedure may be justified in certain cases, it is usually looked upon with disfavor, since the more desirable method is to have the additional working capital supplied by the stockholders.

6. The capital stock of the company has remained stationary during the year and surplus has increased \$16,000.00. The increase in surplus looks favorable, but before a final decision can be made with reference to this, it will be necessary to determine:

> (a) The origin of the increase in surplus. It is important to know whether this has originated from the earnings of the year, or whether it is the result of the writing up of fixed assets, or whether it has been obtained from other sources.
>
> (b) The total earnings for the year should be determined to see what part of these earnings have been retained as surplus. It will also be desirable to ascertain whether the regular dividends have been paid.

7. A final comparison which is of considerable significance is that of the ratio of current assets to current liabilities for the two years. For the year 1917 this ratio is 2.11, while for the year 1916 this ratio is 4.56. It can be seen, therefore, that there is a decided decrease in this ratio. Although the ratio for 1917 does not in itself appear unfavorable, the tendency indicated by the decrease in this ratio during the year is decidedly undesirable. It would seem necessary to determine whether the plans for the coming year would maintain the present ratio or whether a continued decrease is probable.

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate the need of comparative data as a basis for judging the financial condition of a business.

2

Explain the comparisons which may be made for this purpose. Illustrate each comparison stated.

3

The Jones Mercantile Company requests a loan of the First National Bank and presents the following Balance Sheet as a report of its financial condition:

Cash	$ 1,000.00	Notes Payable	$18,000.00
Notes Receivable	2,000.00	Accounts Payable	6,000.00
Accounts Receivable	8,000.00	Capital Stock	16,000.00
Merchandise Inventory	12,000.00	Surplus	1,000.00
Fixed Assets	18,000.00		
	$41,000.00		$41,000.00

Would you advise the bank to grant the loan?

4

The Balance Sheet of the X Mercantile Store shows the current assets to be twice its current liabilities. The Balance Sheet of the Y Manufacturing Company shows its current assets to be three times its current liabilities. Does this prove that the Y Manufacturing Company is a better credit risk than the X Mercantile Store? Why?

5

The Balance Sheet of National Harvester Company shows the following items:

Notes Receivable	$27,000.00
Accounts Receivable	9,000.00

Under what condition will this ratio of notes receivable to accounts receivable be justified and under what conditions will it indicate an undesirable condition?

6

The Balance Sheet of the Daley Corporation shows the following items:

Notes Payable	$18,000.00
Accounts Payable	6,000.00

Under what conditions will this ratio of notes payable to accounts payable be justified and under what conditions will it indicate an undesirable condition.

7

The Balance Sheet of the Chicago Wholesale Company, as of December 31, 1916, shows the following:

Total Assets	$364,000.00
Proprietorship	274,000.00

The Balance Sheet of the same company one year later shows the following:

Total Assets	$530,000.00
Proprietorship	290,000.00

Do these comparisons indicate a desirable or an undesirable tendency?

8

The Balance Sheet of the Chicago Wholesale Company, as of December 31, 1916, shows the following:

Fixed Assets	$130,000.00
Proprietorship	274,000.00

The Balance Sheet of the same company one year later shows the following:

Fixed Assets	$143,000.00
Proprietorship	290,000.00

Do these comparisons indicate a desirable or an undesirable tendency?

9

The comparative Balance Sheet of the Lindblom Manufacturing Company shows the following:

	1921	1920
Notes Receivable	$28,000.00	$18,000.00
Accounts Receivable	14,000.00	20,000.00

What do these comparisons indicate as a possibility? How would you proceed to determine whether this possibility is actual?

10

The same comparative Balance Sheet shows the following items:

	1921	1920
Merchandise Inventory . . .	$68,000.00	$40,000.00

Explain the possible reasons for the increase in inventory, and state which of these are justified and which are unjustified.

11

The Balance Sheet of the Lindblom Manufacturing Company shows a large increase in the book value of the fixed assets during the year. Explain the possible sources of this increase and state in each case your opinion with reference to such an increase.

12

The comparative Balance Sheet of the Lindblom Manufacturing Company shows the following items

	1921	1920
Notes Payable	$66,000.00	$32,000.00
Accounts Payable	36,000.00	54,000.00

Explain what you would desire to know in order to interpret the meaning of this comparison.

13

Under what conditions is an increase in fixed liabilities regarded with favor and under what conditions with disfavor?

14

In judging the effect of an increase of the item of Surplus as shown by a comparative Balance Sheet, what information is necessary?

15

"It is contrary to conservative accounting and management to show appreciation of fixed assets in the accounts or on the financial reports." Why?

LABORATORY MATERIAL

Exercise No. 145

The Balance Sheet of the Taylor Mercantile Company on December 31, 1919, is as follows:

TAYLOR MERCANTILE COMPANY
Balance Sheet, December 31, 1919

Cash	$ 18,000	Notes Payable	$ 31,000
Notes Receivable	39,000	Accounts Payable	44,000
Accounts Receivable	75,000	Mortgages Payable	30,000
Merchandise Inventory	210,000	Bonds Payable	32,000
Land	90,000	Capital Stock	375,000
Building	60,000	Surplus	34,000
Office Equipment	15,000		
Deferred Charges to Expense	8,000		
Goodwill	31,000		
	$546,000		$546,000

Mr. McMahon, a prospective purchaser of one-half of the capital stock of the company, requests you to state your opinion of the financial condition of the Taylor Mercantile Company as shown by this Balance Sheet. You can not obtain access to the records of the Taylor Mercantile Company because they are maintained in a distant city, but the Vice-President of the Company, who is Treasurer and Head of the Accounting Department, agrees to answer any questions which you desire to ask.

Instructions: State in outline form (a) the questions which you would ask with reference to each item which appears on the Balance Sheet; (b) the comparisons of items which you would make in interpreting the Balance Sheet and what these comparisons indicate on this statement.

Exercise No. 146

The accounts of the Bolton Manufacturing Company are closed by the bookkeeper of the company on December 31, 1920. After all the expense and income accounts are closed the Profit and Loss account shows a credit balance of $75,000.00. This is much larger than the normal profit of the company and is larger than the company expected. You are asked to examine the accounts to see if any adjustments are necessary, and to recommend the disposition of the remaining profits. As a result of your examination it is determined:

1. To set up a reserve for depreciation of 10% of the plant and machinery which has a book value of $60,000.00.

2. To write off as uncollectible $1,800.00 of the accounts receivable and to set up a reserve for possible future losses of 2% of the balance of $45,000.00.

3. To provide for a bonus of $7,000.00 to employees.

4. To provide for the dividend on the $50,000.00 6% preferred stock and for a dividend of 15% on the $10,000.00 common stock. The directors meet and declare these dividends before you close the Profit and Loss account. They are to be paid one month later.

5. To carry $5,000.00 to a Reserve for Bond Sinking Fund, in accordance with the provisions of the mortgage under which the bonds of the company are issued.

6. To carry the balance of the Profit and Loss account to the Surplus account.

Instructions: 1. Make the journal entries necessary to comply with these decisions. 2. Explain how each of the accounts set up by these entries will appear on the Balance Sheet.

Exercise No. 147

Mr. McMahon does not purchase the capital stock of the Taylor Mercantile Company (Exercise No. 145) in 1919 because he thinks the purchase price is too high. In January, 1921, the same stock is offered to Mr. McMahon at a lower price. He submits to you the following Balance Sheet of the company:

TAYLOR MERCANTILE COMPANY
Balance Sheet, December 31, 1920

Cash	$ 15,000	Notes Payable	$195,000
Notes Receivable	71,000	Accounts Payable	75,000
Accounts Receivable	69,000	Mortgages Payable	45,000
Merchandise Inventory	405,000	Bonds Payable	40,000
Land	105,000	Capital Stock	375,000
Building	63,000	Surplus	54,000
Office Equipment	16,000		
Deferred Charges	10,000		
Goodwill	30,000		
	$784,000		$784,000

Instructions: 1. Prepare a comparative Balance Sheet for the Taylor Manufacturing Company using the Balance Sheet given in this and Exercise No. 145.

2. Write a report to Mr. McMahon showing your method of interpreting the comparative Balance Sheet and your opinion of the financial condition of the company as shown by its Balance Sheet. State any additional information which you think is necessary to determine properly the advisability of purchasing the stock.

CHAPTER LV

ANALYSIS OF FINANCIAL STATEMENTS—Concluded

Comparison of Items on a Particular Statement of Profit and Loss

The Statement of Profit and Loss for the Chicago Wholesale Company for the year ending December 31, 1917, is shown in Illustration No. 91. The most important comparisons which may be shown in connection with the single Statement of Profit and Loss are illustrated by the percentages shown on this exhibit. These comparisons are all based on the ratio of the different items shown on the Statement of Profit and Loss to the gross sales. These ratios are of very great importance when taken in connection with the same ratios of previous years, but are of little significance when taken by themselves. This is due to the fact that unless there is some standard by which to judge these ratios, there is no means of knowing whether they are too large or too small.

Comparison of Corresponding Items and Ratios on Different Statements of Profit and Loss

The comparative Statement of Profit and Loss for the Chicago Wholesale Company for the years 1916 and 1917 is shown in Illustration No. 92.

A number of interesting comparisons can be made from this comparative Statement of Profit and Loss. The most significant of these are:

1. Sales have increased 50%. This in itself looks very favorable, but the results of such sales must be considered before a final conclusion is made.

2. For the year 1916, the sales returns and allowances represent 1% of sales. For the year 1917 they represent 2% of sales. This increase probably indicates one of two things:

> (a) That poorer service is being given to the customers since they are returning more goods and claiming more allowances; or
>
> (b) New territories are being entered and, in the process of establishing new relations, more liberal privileges are being accorded to customers.

An analysis should be made of these returns in order to determine the reason for this increase.

CHICAGO WHOLESALE COMPANY

Statement of Profit and Loss, December 31, 1917

Gross Sales	$600,000.00	
Less: Returns and Allowances	12,000.00	(2%)
Net Sales	588,000.00	(98%)
Cost of Goods Sold:		
Inventory Beginning of Year	140,000.00	
Purchases	634,000.00	
	774,000.00	
Less: Ending Inventory	270,000.00	
Cost of Goods Sold	504,000.00	(84%)
Gross Profit on Sales	84,000.00	(14%)
Operating Expenses:		
Buying Expenses	5,000.00	(0.8%)
Selling Expenses:		
Salesmen's Salaries	14,000.00	
Salesmen's Expenses	20,000.00	
Advertising	12,000.00	
Clerk Hire	2,000.00	
Miscellaneous	1,000.00	
Total Selling Expenses	49,000.00	(8.2%)
Administrative Expense:		
Office Salaries	7,000.00	
Heat and Light	2,000.00	
Clerk Hire	2,500.00	
Telephone and Telegraph	200.00	
Legal Expense	1,300.00	
Total Administrative Expense	13,000.00	(2.2%)
Total Operating Expenses	67,000.00	(11.2%)
Net Operating Profit	17,000.00	(2.8%)
Other Income:		
Interest on Notes Receivable	200.00	
Discount on Purchases	2,400.00	
Total Other Income	2,600.00	
Total Gross Income	19,600.00	(3.2%)
Deductions from Income:		
Interest on Notes Payable	4,000.00	
Interest on Mortgages Payable	1,800.00	
Interest on Bonds Payable	1,800.00	
Sales Discounts	1,000.00	
Total Deductions from Income	8,600.00	
Net Income	11,000.00	(1.8%)

Illustration No. 91—Statement of Profit and Loss, Chicago Wholesale Company

CHICAGO WHOLESALE COMPANY

Comparative Statement of Profit and Loss

	1916		1917	
Gross Sales	$400,000.00		$600,000.00	
Less: Sales Returns and Allow.	4,000.00	(1%)	12,000.00	(2%)
Net Sales	396,000.00	(99%)	588,000.00	(98%)
Cost of Goods Sold:				
Inventory Beginning of Year	60,000.00		140,000.00	
Purchases	415,000.00		634,000.00	
	475,000.00		774,000.00	
Less: Ending Inventory	140,000.00		270,000.00	
Cost of Goods Sold	335,000.00	(84%)	504,000.00	(84%)
Gross Profit on Sales	61,000.00	(15.3%)	84,000.00	(14%)
Operating Expenses:				
Buying Expenses	5,000.00	(1.3%)	5,000.00	(.8%)
Selling Expenses:				
Salesmen's Salaries	8,000.00		14,000.00	
Salesmen's Expenses	10,000.00		20,000.00	
Advertising	5,000.00		12,000.00	
Clerk Hire	2,000.00		2,000.00	
Miscellaneous	1,000.00		1,000.00	
Total Selling Expenses	26,000.00	(6.5%)	49,000.00	(8.2%)
Administrative Expenses:				
Office Salaries	5,000.00		7,000.00	
Heat and Light	2,000.00		2,000.00	
Clerk Hire	2,500.00		2,500.00	
Telephone and Telegraph	100.00		200.00	
Legal Expense	400.00		1,300.00	
Total Administrative Expense	10,000.00	(2.5%)	13,000.00	(2.2%)
Total Operating Expenses	41,000.00	(10.3%)	67,000.00	(11.1%)
Net Operating Profit	20,000.00	(5%)	17,000.00	(2.8%)
Other Income:				
Interest on Notes Receivable	200.00		200.00	
Discount on Purchases	2,800.00		2,400.00	
Total Other Income	3,000.00		2,600.00	
Gross Income	23,000.00	(5.8%)	19,600.00	(3.2%)
Deductions from Income:				
Interest on Notes Payable	1,000.00		4,000.00	
Interest on Mortgages Payable	1,200.00		1,800.00	
Interest on Bonds Payable	1,200.00		1,800.00	
Sales Discounts	9,000.00		1,000.00	
Total Deductions from Income	12,400.00		8,600.00	
Net Income	10,600.00	(2.7%)	11,000.00	(1.8%)

Illustration No. 92—Comparative Statement of Profit and Loss

3. Gross profit on sales in 1916 is 15.3% of sales, while in 1917 it has decreased to 14%. This indicates that the cost of goods sold has increased more than has the sales price. Examination should be made to determine if the plans for the coming year contemplate making provision for the increase in the cost of goods sold as indicated by the comparative Statement of Profit and Loss.

4. Turnover. The merchandise turnover for the year 1916 is 3.35%, while for the year 1917 it has decreased to 2.45%. This shows a decided decrease in the rate of turnover and careful attention should be given to this matter.

5. Ratio of Selling Expenses to Sales. Selling expenses are 6.5% of sales for the year 1916, and are 8.1% in 1917. This shows that though the sales are increasing, it is costing more to secure these sales. By reference to the detailed items, it will be seen that the cause of this increase is the extra cost of salesmen's salaries and expenses and of advertising. These increased expenses may have been incurred in order to obtain additional business and build up goodwill for the company. It may have been proper to have increased them, but the tendency for such expenses to increase faster than sales increase, is a dangerous one and care should be taken that it does not continue too long.

6. Administrative Expenses. The ratio of administrative expenses to sales in 1916 is 2.5%, and in 1917 2.2%. This shows a desirable tendency and indicates that the increase in sales has not brought about a proportionate increase in administrative expenses.

7. Net Operating Profit. The net operating profit for the year is smaller in 1917 than in 1916. This is the most discouraging information shown on the comparative Statement of Profit and Loss. When the sales have increased 50%, it is decidedly unsatisfactory to find that the net profits have decreased. It may, of course, be found upon examination that some of the expenses incurred during the current year are expected to result in increased business during the next year. If this is true, there is some excuse for the unprofitable showing during the past year; however, a careful examination should be made to ascertain if this is the situation.

8. Net Income. Although the net operating profit is smaller in 1917 than in 1916, the net income for the former year is larger than for the latter year. At first, this may seem to be encouraging, but, if an examination is made of the items appearing under

"other income" and "deductions from income," it will be seen that this is due to the decrease in the sales discounts taken by customers.

In the year 1917 customers took discounts of $9,000.00, while in the year 1917 they take discounts of only $1,000.00. This indicates that sales are being made to customers on less favorable terms, or that the credit department of the business has been lax and sales made to customers who are slow in paying their account. As will be explained in the next paragraph, the comparative Balance Sheet indicates that these indications are probably correct.

Omissions

There are certain items omitted from the Statement of Profit and Loss for 1916 and 1917, the omission of which is quite significant. The statement shows no charges for repairs on fixed assets, no charges for depreciation on these assets, and no charges for a reserve for bad debts. If a proper provision were made for all of these, it is probable that the operating profit for 1917 would be turned into an operating loss.

Relation of Comparative Balance Sheet to Comparative Statement of Profit and Loss

If the comparative Balance Sheet shown in Illustration No. 90 is studied in connection with the comparative Statement of Profit and Loss shown in Illustration No. 92, a number of significant facts are indicated:

1. The comparative Balance Sheet shows that the notes receivable of the concern are increasing and the accounts receivable are decreasing. The comparative Statement of Profit and Loss shows that the discounts taken by customers have greatly decreased. These comparisons bear out the probability indicated by the comparative Balance Sheet of the company that customers are giving notes in settlement of overdue accounts. It is needless to emphasize that this is an undesirable tendency.

2. The comparative Balance Sheet shows a large increase in merchandise inventory and an increase which is much larger proportionately than the increase in sales, as shown by the comparative Statement of Profit and Loss. Whereas the sales have increased 50%, the merchandise inventory has increased almost 100%. The comparative Statement of Profit and Loss shows that the merchandise turnover has greatly decreased. These compari-

sons seem to indicate that unsalable merchandise is being accumulated and that this causes the large increase in merchandise inventory.

3. In studying the comparative Balance Sheet, it was pointed out that the increase in the fixed assets of building and office equipment might be due to the charging of repairs to the asset accounts. The absence of any charges for repairs on the Statement of Profit and Loss strengthens the probability that this is true.

4. The fact that no depreciation is shown on the Statement of Profit and Loss indicates that proper provision for depreciation on fixed assets has not been made since such depreciation has also been omitted from the Balance Sheet. The depreciation might be omitted from the Balance Sheet and the asset shown net; but, if it is omitted both from the Balance Sheet and the Statement of Profit and Loss, this is conclusive evidence that no such provision has been made.

5. Since no charges for anticipated losses on bad debts are shown either on the Statement of Profit and Loss or on the Balance Sheet, it is evident that such provision has not been made. Considering the conditions indicated by the comparison of the notes receivable, accounts receivable, and sales discount items, it is evident that liberal provision should be made for probable losses on notes receivable and accounts receivable.

6. The comparative Balance Sheet shows a very large increase in notes payable. The comparative Statement of Profit and Loss shows that the discounts taken on purchases have decreased during the year. This indicates that the notes have not been issued in order to obtain funds with which to discount merchandise invoices. As previously stated, an analysis should be made of the notes payable in order to determine to whom they have been issued.

7. The Surplus account shows an increase of $16,000.00 for the year. The Statement of Profit and Loss shows that the net profit for the year is $11,000.00. This seems to indicate that at least $5,000.00, arising from some source other than earnings, has been carried to the Surplus account during the year. In the examination of the comparative Balance Sheet, given in Illustration No. 90, it was pointed out that the increase shown in the item of Land should be examined since this might be due to the writing up of the value of the Land with a corresponding credit to Surplus. The fact that the surplus has been increased more than the amount of the net earnings for the year seems to indicate that this may

have been done. In any case, an examination should be made to determine whether this is true.

Summary

The analysis made of the comparative Balance Sheet and comparative Statement of Profit and Loss of the Chicago Wholesale Company indicates the advantages of comparative statistics. The Balance Sheet of this company for December 31, 1917, and the Statement of Profit and Loss for the year ending on the same date, indicate that the company is in a very good financial condition, although the profit earned for the year is small in comparison to the investment in the company. But when the comparative Balance Sheet and the comparative Statement of Profit and Loss of the company are studied, there are indications that the financial policies and the financial management of the company are far from satisfactory.

It is in connection with such companies as the one whose statements are given in this chapter, that comparisons are of the greatest value. If a company is in a very poor financial condition, this will be indicated by its Balance Sheet alone, or at least by its Balance Sheet studied in connection with the Statement of Profit and Loss. But when the company has been in a prosperous condition and is commencing to pursue policies which are having a detrimental effect upon its financial condition, it is very possible that there may be a failure to detect this fact unless proper comparisons are made. The comparative Balance Sheet, studied in connection with comparative Statement of Profit and Loss, should indicate such tendencies. Of course, additional information should be obtained to use in checking up the indications shown by the comparative financial reports.

QUESTIONS FOR CLASS DISCUSSION

1

Give the principal ratios which may be shown on the Statement of Profit and Loss as indicated by Illustration No. 91.

2

Explain why these ratios, when taken by themselves, are of limited use.

3

The comparative Statement of Profit and Loss of the Anderson Wholesale Company shows the following:

	1921	1920
Sales	$300,000.00	$200,000.00

Are these figures of themselves proof of the successful operation of this company?

4

What additional information would you desire in order to determine the success of the operations of the year?

5

The sales returns and allowances of the Anderson Wholesale Company for the year 1920 are 1% of sales and for the year 1921 are 3% of sales. What does this increase indicate?

6

The comparative Statement of Profit and Loss of the same company shows that the cost of goods sold for the year 1920 is 60% of sales and during the year 1921 it is 70%. Explain what this shows and the probable cause for it.

7

The merchandise turnover of the company has decreased from 6% in 1920 to 4% in 1921. Explain the possible causes for this decrease.

8

Explain the effect of this decrease in merchandise turnover on the profits of the company. Explain the steps which may be taken to remedy this situation.

9

The selling expenses of the Anderson Wholesale Company for the year 1920 are 3% of sales and in 1921 are 6%. Explain the possible reasons for this increase. Does this increase necessarily indicate an undesirable situation?

10

The comparative Statement of Profit and Loss of the Dodge Steel Company shows a large decrease in sales discounts for the year 1921. State the possible causes for this large decrease. Is this a desirable tendency?

11

The Statement of Profit and Loss of the Dodge Steel Company does not show provision for depreciation on fixed assets. What effect does this omission have on the financial condition of the business as reflected in the Balance Sheet?

12

The statement of the company also fails to show any record of repairs on fixed assets. You know that some repairs have been made during the year. How would you expect to find these repairs recorded in the accounts since they are not shown on the Statement of Profit and Loss?

13

In what way does the comparative Statement of Profit and Loss assist in determining the desirability of an increase of inventory shown by the comparative Balance Sheet?

14

Explain and illustrate how the comparative Statement of Profit and Loss assists in determining the correctness of the value at which the assets are shown on the comparative Balance Sheet.

15

15. Explain how an analysis of the Surplus account, showing the entries made in it during the fiscal period, may be of service in interpreting the financial condition of a business.

LABORATORY MATERIAL

Exercise No. 148

A. M. Chapman, a capitalist, contemplates purchasing the stock of the Hydrex Corporation. The corporation has an authorized capital stock of $200,000.00 divided into 1,000 shares of 6% preferred and 1,000 shares of common. The par value of each is $100.00. The stock has been offered to Mr. Chapman at $60.00 per share for the preferred and $40.00 per share for the common.

You are requested to examine the books of the company and give your opinion as to the value of the stock. You find the following accounts to be correct, covering a period of one year:

Cash		$ 900.00	
Accts. Receivable:			
Good	$15,000.00		
Doubtful . . .	4,000.00		
Bad	6,000.00	25,000.00	
Land and Buildings		75,000.00	
Delivery Equipment		4,000.00	
Merchandise Inv. .		29,000.00	
Goodwill		50,000.00	
Furn. and Fixt. .		2,000.00	
Admin. Expenses .		3,000.00	
Salaries (Sales) .		7,000.00	
Admin. Sales . .		8,000.00	
Purchases		325,000.00	
Claims and Rebates		8,000.00	
Repairs		9,000.00	
Sales			$260,400.00
Mortgage on Plant			25,000.00
Accounts Payable .			42,000.00
Surplus			18,500.00
Capital Stock .			200,000.00
		$545,900.00	$545,900.00

(*Concluded on page 808*)

Instructions: 1. Prepare a Balance Sheet and Statement of Profit and Loss taking into consideration the following:

(a) Inventory at the end of the year, $129,000.00.
(b) Estimated depreciation:
Buildings, 30% of present book value of $50,000.00.
Furniture and Fixtures, 50% of present book value.

This large depreciation is necessary because no depreciation has been allowed for the past six years.

(c) One-half of doubtful accounts are thought to be collectible.

2. Write a report to Mr. Chapman stating your opinion as to the advisability of the purchase of the stock with reasons for your opinion.

Exercise No. 149

After examination of the comparative Balance Sheet of the Taylor Mercantile Company which you prepared in Exercise No. 147, you suggest to Mr. McMahon that it is desirable to obtain a comparative Statement of Profit and Loss of the company that you may study it in connection with the comparative Balance Sheet. In compliance with your suggestion, he obtains the statement shown on page 809.

Instructions: Write a report to Mr. McMahon stating:

1. All the comparisons which you have made:

(a) Between items contained on the comparative Statement of Profit and Loss.

(b) Between items on the comparative Balance Sheet and the comparative Statement of Profit and Loss.

2. Your opinion with reference to the financial condition of the company and the desirability of buying one-half of the capital stock at its book value as shown by the Balance Sheet of December 31, 1920.

TAYLOR MERCANTILE COMPANY
Comparative Statement of Profit and Loss

	1919	1920
Gross Sales	$600,000.00	$900,000.00
Less: Sales Returns and Allowances	6,000.00	1,800.00
Net Sales	594,000.00	898,200.00
Cost of Goods Sold:		
Inventory Beginning of Year	95,000.00	215,000.00
Purchases	622,000.00	951,000.00
	717,000.00	1,166,000.00
Less: Ending Inventory	210,000.00	405,000.00
Cost of Goods Sold	507,000.00	761,000.00
Gross Profit on Sales	87,000.00	127,200.00
Operating Expenses:		
Buying Expenses	7,500.00	7,500.00
Selling Expenses:		
Salesmen's Salaries	11,000.00	20,000.00
Salesmen's Expenses	15,000.00	30,000.00
Advertising	8,000.00	18,000.00
Clerk Hire	3,000.00	4,000.00
Miscellaneous	1,200.00	1,200.00
Total Selling Expenses	38,200.00	73,200.00
Administrative Expenses:		
Office Salaries	7,500.00	13,000.00
Heat and Light	3,000.00	3,000.00
Clerk Hire	4,000.00	4,000.00
Telephone and Telegraph	250.00	300.00
Legal Expense	250,00	1,000.00
Total Administrative Expense	15,000.00	21,300.00
Total Operating Expenses	60,700.00	102,000.00
Net Operating Profit	26,300.00	25,200.00
Other Income:		
Interest on Notes Receivable	500,00	500.00
Discount on Purchases	9,500.00	5,800.00
Total Other Income	10,000.00	6,300.00
Gross Income	36,300.00	31,500.00
Deductions from Income:		
Interest on Notes Payable	1,500.00	2,000.00
Interest on Mortgages Payable	1,800.00	1,900.00
Interest on Bonds Payable	1,000.00	2,000.00
Sales Discounts	4,000.00	100.00
Total Deductions from Income	8,300.00	6,000.00
Net Income	28,000.00	25,500.00

CHAPTER LVI

DIFFERENT TYPES OF FINANCIAL STATEMENTS

The "Statement of Condition" of a Bank

Banks do not term the statement which shows their assets, liabilities and proprietorship a Balance Sheet. They refer to this statement as a "Statement of Condition" or as a "Statement of Resources and Liabilities." The statement of condition of a bank differs from the Balance Sheet of an industrial firm in the following ways: (1) as to a terminology; (2) as to the number and nature of the assets and liabilities; (3) as to ratio between the different assets and liabilities. The most important of these differences are as follows:

1. The principal indebtedness of a bank is its liability to depositors for the funds which they have deposited with it. Most of these deposits are subject to withdrawal at the option of the depositor. This necessitates that the bank keep a large amount of cash on hand at all times. The law usually requires that a minimum amount must be kept. The item of cash on the Statement of Condition of a bank will be much larger in proportion to the other assets shown thereon than is the same item on the Balance Sheet of an industrial firm.

2. A bank secures its principal income from the loans which it makes to customers. The major part of these loans are made on short-time notes. It may loan the money to a customer and receive the customer's note, or it may discount the notes of others which the customer presents. The loans made under both conditions are shown on the Statement of Condition as "Loans and Discounts." This term corresponds to the term "Notes Receivable" on the Balance Sheet of the industrial firm. In most businesses few notes are received so the item of Notes Receivable on the Balance Sheet is usually small in proportion to the other asset items. On the other hand, "Loans and Discounts" is the largest asset item on the Statement of Condition of a bank, and often it is equal to all the other assets.

3. Banks require notes for all loans made; therefore, the item of accounts receivable appears on the Balance Sheet only when there is accrued income, or customers have overdrawn their accounts. Banks will not permit overdrafts, except in the case of well-known customers, and then only temporarily.

4. Banks usually have a considerable amount of their funds invested in stocks and bonds. Under our present banking laws national banks are required to purchase a certain amount of United States bonds before they can issue currency. Many banks purchase the stocks and bonds of industrials. If these are purchased wisely, they provide a good income and are readily salable in case funds are needed by the bank. If money is loaned on notes, it can not be recovered until the notes fall due, but, if funds are invested in salable securities, they can be recovered at any time by the sale of the securities. Banks usually purchase bonds in preference to stocks, but the latter are sometimes purchased. For the foregoing reasons, "Investments" is usually a large item on the Statement of Condition for a bank. On the other hand, it does not appear at all on the Balance Sheet of many industrials, and, when it does appear, it is usually small in amount.

5. The fixed assets of a bank are usually small in proportion to its total assets. Many banks own the buildings in which they are located. In itself, the value of the bank building may seem large, but when compared with the value of all the assets, it is usually small. A bank has no *occasion* to own fixed assets other than its bank premises and furniture and equipment.

6. Many banks have no fixed liabilities. Sometimes a bank may give a mortgage on its bank building, or, in the case of very valuable property, may issue bonds which are secured by this property. Most banks, however, have no occasion to incur fixed liabilities.

7. The surplus of a bank is usually larger in proportion to its capital than is the surplus of the industrial firm. This is due to two reasons: (1) National banks and some state banks are required by law to retain a certain percentage of their profits in the business each year until the surplus has reached a certain amount of their capital, usually twenty-five per cent; (2) the surplus built up under this requirement is not subject to distribution as dividends and must be retained in the business. Most banks increase their surplus beyond the legal requirements in order to increase their working capital and to provide additional security to their depositors. Banks emphasize the amount of their surplus in their advertising in order to indicate their prosperous condition and their stability.

8. When a bank transfers profits to its Surplus account, it is usually with the intention of leaving these profits in the business

permanently. Because of the permanent nature of the Surplus account, the bank usually sets up an "Undivided Profits" account to which it transfers the profits from which it expects to declare dividends and to hold subject to disposition at will. Few business firms have the item of Undivided Profits on their Balance Sheet, although it may appear on the Balance Sheet of a partnership.

9. There are some assets and liabilities which are peculiar to the banking business. These will be explained in the following discussion.

The Standard Form of Bank Statement

The standard form of bank statement, such as is used by nearly all banks for purposes of publication, is very well illustrated in Illustration No. 93.

BANK OF THE MANHATTAN COMPANY, NEW YORK, N. Y.
Statement of Condition, January 1, 1921

RESOURCES:		LIABILITIES:	
Loans and Discounts	$111,731,026.22	Capital	$ 5,000,000.00
U. S. Govt. Bonds and Certificates	7,890,470.80	Surplus	12,500,000.00
Other Securities	6,781,113.15	Undivided Profits	3,974,460.45
Bank Premises	2,997,557.07	Unearned Discounts	686,252.11
Due from Banks	8,654,095.36	Reserved for Taxes	459,836.91
Exchanges for Clearing House	89,773,802.28	Bills Payable secured by Liberty Bonds	9,000,000.00
Other Cash Items	7,790,473.31	Acceptances	12,200,257.81
Customers' Liabilities under Commercial Credits	11,549,846.77	Deposits	220,682,290.79
Cash	17,334,713.11		
	$264,503,098.07		$264,503,098.07

Illustration No. 93—Statement of Condition, Bank of the Manhattan Company of New York City

The various assets and liabilities appearing on the statement are explained in the following discussion.

Banks do not arrange their assets and liabilities in a uniform order. A different arrangement from that shown in Illustration No. 93 is shown by Illustration No. 94.

Illustration of Bank Statement with Explanation of Asset and Liability Items

The statement of condition shown in Illustration No. 94 is very interesting, since it gives an explanation of each asset and liability item with reference to which there might be any question.

COLUMBIA TRUST COMPANY, NEW YORK, N. Y.
Statement of Condition, December 31, 1920

Assets	
Cash on Hand (Gold, other coin and currency)	$ 1,097,107.77
Cash in Banks and Exchanges (Our balance with the Federal Reserve Bank and other banks, and checks deposited by our customers in process of collection)	19,605,077.82
Foreign Exchange (Assured dollar value of our balances abroad, and of our holdings of prime foreign bills of exchange after payment at maturity)	2,179,391.38
U. S. Government Bonds and Notes	3,215,243.60
State and Municipal Bonds	1,950,927.24
Short-Term Securities (Our investments in obligations of railroad and industrial corporations, payable at a near date and readily salable)	4,026,139.86
Other Bonds and Stocks (Our investments in readily salable securities)	9,951,667.10
Loans and Bills Purchased (Loans amply secured, and notes of concerns of highest standing and financial rating)	56,994,348.87
N. Y. City Mortgages (First mortgages on improved property in New York City)	4,490,649.86
Real Estate (Banking buildings—lower floors, used for our business—upper floors, rented to the public)	3,946,372.51
Customers' Liability on Acceptances and Commercial Letters of Credit (Obligation of our customers to reimburse us for (1) commercial drafts accepted by us, payable at a future date, (2) engagements to pay or come under acceptance on presentation of specified commercial documents here or abroad)	11,436,233.67
Accrued Interest Receivable (Net interest accrued on loans and investments but not yet payable)	386,138.30
Total	$119,279,297.98
Liabilities	
Due Depositors (Funds deposited with us as follows: (a) checking accounts; (b) deposits for a fixed time or on thirty-one days' notice; (c) for trust or other purposes)	$ 91,674,987.70
Mortgage on Real Estate (Existing mortgage on property recently purchased by this company for banking premises)	115,250.00
Reserve for Taxes (Proportionate amount accrued for taxes, figured as though now due)	458,650.27
Bills Payable (Our obligation to pay the Federal Reserve Bank, secured by Liberty Bonds as collateral)	2,000,000.00
Acceptances (Commercial drafts accepted by us against domestic and foreign shipments of merchandise payable at a future date)	10,158,514.97
Commercial Letters of Credit (Our engagements to pay or come under acceptance on presentation of specified commercial documents either here or abroad)	1,277,718.70
Rediscounts (Acceptances sold in the local open market or discounted abroad, bearing the endorsement of this company)	920,393.71
Accrued Interest Payable (Amount set aside to meet interest due on deposits)	65,498.98
Total	$106,671,014.33
Leaving Capital, Surplus and Undivided Profits	$ 12,608,283.65

Illustration No. 94—Statement of Condition, Columbia Trust Co.

Discussion of Particular Items of Bank Statement

With reference to a few of the items appearing on the Statement of Condition, shown in Illustration No. 94, a few additional words of explanation may well be given:

1. **Cash in Banks and Exchange.** Under the Federal Reserve Law, all members of the Federal Reserve System must keep certain funds on deposit with the central reserve bank of the district in which the member bank is situated. Banks keep funds on deposit with banks in other cities in order that they may draw drafts on these banks. When checks on other banks are deposited by customers, they are collected through the clearing house of the two cities in which the banks are situated. Until they are collected, they must be recorded in the records and on the financial statements. Some banks show such items under the heading of "Due from Other Banks" instead of under the heading employed by the Columbia Trust Company.

2. **Foreign Exchange.** This item is composed of the following:

(a) Funds on deposit in foreign banks.

(b) Bills of exchange owned by the bank which are payable in the currency of foreign countries.

Large banks keep funds on deposit with foreign banks so that they can draw foreign bills of exchange or drafts in the same manner as they keep funds on deposit with domestic banks so that they can draw domestic bills of exchange. In arriving at the value of these deposits and foreign bills of exchange, it is necessary to take into consideration their value in United States currency. This value is affected by the prevailing rate of exchange between the two countries. Their value in United States money is termed their "dollar" value, since the dollar is the standard of value in the United States.

3. **Investments.** It will be noticed that the investments are carefully classified so that their nature is clearly shown. This is a desirable procedure and is much to be preferred to the practice of some banks of showing all such items under the heading of "Investments."

4. **Loans and Bills Purchased.** This item includes loans made to customers and notes which have been discounted for customers. It may also include short-time notes purchased from note brokers. On the statements of many banks, this item is termed "Loans and Discounts."

5. **Customers' Liability on Acceptances and Commercial Letters of Credit.** Merchants often arrange with their bankers for the latter to accept drafts drawn by them on the bank in payment of merchandise purchased. In some cases the bank issues to the customer a "letter of credit" which states that the bank will accept drafts drawn by the customer not exceeding a certain amount upon the presentation of the proper documents. The documents required are usually a bill of lading and the accompanying papers which show that goods have been purchased and shipped to the customer who draws the draft. By presenting the letter of credit the merchant can establish his authority to draw the draft on the bank, and the vendee of the goods is therefore willing to accept the draft in payment.

When a bank accepts a draft drawn by a customer or issues a letter of credit to the customer, it records the liability of the customer to the bank as an asset and the liability of the bank on the draft or letter of credit as a liability. When the draft falls due, it is paid by the bank and charged against the account of the depositor. The bank charges the depositor interest on the amount of the draft from the time it is accepted by the bank until it is paid. It thus makes a profit from the transaction.

6. **Reserve for Taxes.** This item shows the estimated amount of the taxes accrued to date. It might more appropriately be shown as "Accrued Taxes" as this would more nearly indicate its nature.

7. **Acceptances and Commercial Letters of Credit.** These items offset the asset item of "Customers' Liability on Acceptances and Commercial Letters of Credit" which has been explained above.

8. **Rediscounts.** This item represents the contingent liability of the bank on acceptances of other companies which it has purchased and resold with its endorsement. The bank follows the conservative practice of setting up this contingent liability on its reports. This item is offset by including the acceptances discounted as an asset on the asset side of the Statement of Condition.

A Novel Form of Bank Statement

A novel form of statement is shown in Illustration No. 95. It will be noted that the only liabilities shown on this statement are those to depositors. Since the bank must have some liabilities to others than its depositors, using that term in its usual sense, it must be assumed that it has included these liabilities under the heading "The Bank Owes Depositors." It seems that it might be well to revise the statement to read:

The Bank Owes to:	
(a) Depositors	
(b) Others	
Total	$.......

THE CORN EXCHANGE BANK, NEW YORK

Statement of November 15, 1920

THE BANK OWES TO DEPOSITORS . . . . (A conservative banker always has this indebtedness in mind, and he arranges his assets so as to be able to meet any request for payment)	$200,740,182.19
FOR THIS PURPOSE WE HAVE:	
I. Cash . . . . (Gold, bank notes and specie, and with legal depositories returnable on demand)	38,705,966.62
II. Checks on Other Banks . . . . (Payable in one day)	25,860,870.01
III. U. S. Government Securities	43,537,226.90
IV. Loans to Individuals and Corporations . . . . (Payable when we ask for it, secured by collateral of greater value than the loans)	30,306,163.10
V. Bonds . . . . (Of railroads and other corporations, of first quality and easily salable)	16,532,225.85
VI. Loans . . . . (Payable in less than three months on the average, largely secured by collateral)	56,652,893.74
VII. Bonds and Mortgages and Real Estate	979,298.16
VIII. Twenty-three Banking Houses . . . . (All located in New York City)	3,636,751.12
Total to Meet Indebtedness	$216,211,395.50
IX. This Leaves a Surplus of . . . . (Which becomes the property of the stockholders after the debts to the depositors are paid, and is a guarantee fund upon which we solicit new deposits and retain those which have been lodged with us for many years)	$ 15,471,213.31

Illustration No. 95—Statement of Condition of the Corn Exchange Bank, New York

The tendency indicated by the statements of the Columbia Trust Company and the Corn Exchange Bank to make financial reports more easily understood is admirable and should be encouraged by business men and accountants. Business firms might well follow the example of these banks in making reports to their stockholders and creditors.

QUESTIONS FOR CLASS DISCUSSION

1

On the Balance Sheet of an industrial firm all notes received from customers are entered as "Notes Receivable." Banks receive many notes from their customers, but on their Statement of Condition the term "Notes Receivable" does not appear. Explain.

2

The ratio of cash to total assets on the Statement of Condition of a bank is much larger than the ratio of cash to total assets on the Balance Sheet of an industrial firm. Explain.

3

What is usually the largest asset of a bank? Why?

4

In most businesses the accounts receivable are much larger than the notes receivable. Is this true in the case of a bank? Why?

5

The item of "Investments" does not appear on the Balance Sheet of many industrial firms, and, when it does appear, it is usually small in amount. On the other hand, it is usually a large item on the Statement of Condition of a bank. Explain.

6

Why are the fixed assets of a bank small in proportion to its total assets?

7

On which would you expect to find the item of fixed liabilities the larger, the Balance Sheet of a manufacturing firm or the Statement of Condition of a bank?

8

On the Statement of Condition of the Bank of the Manhattan Company the following items appear:

Surplus	$12,500,000.00
Undivided Profits	3,974,460.45

Explain the meaning of these items.

9

The Statement of Condition of the Columbia Trust Company, as shown in Exhibit B, contains the following item:

Cash in Banks and Exchanges $19,605,077.82

Explain where this cash may be located and why it is kept at each place.

10

The same statement contains this item:

Foreign Exchange $2,179,391.38

Explain the meaning and purpose of this item.

11

Explain fully the meaning of this item:

Customers' Liability on Acceptances and Commercial Letters of Credit . $11,436,233.67

12

On the Statement of Condition of the Columbia Trust Company there appears the following item: "Reserve for Taxes, $458,650.27." Explain the purpose of this item. How else might this item be shown?

13

Mr. Jones plans to go to South America to purchase goods. Mr. Jones is not known personally to the merchants from whom he expects to buy. He asks his local bank to explain how he may arrange to pay for his purchases without inconvenience to himself or those with whom he trades. Explain the method which the bank will probably advise him to follow.

14

If Mr. Jones accepts the advice of his bank, what effect will his action have on the Statement of Condition of the bank?

15

The Merchants Bank has a large amount of its funds invested in notes of customers. It needs some additional cash. How may it obtain these funds from these notes? How will this action be shown in its Statement of Condition?

LABORATORY MATERIAL

Exercise No. 150

The ledger of the State Bank of New York shows the following asset, liability and proprietorship balances on November 15, 1920:

Capital Stock	$ 2,500,000.00
Loans and Discounts	55,404,235.80
Banking House	725,961.00
Surplus and Undivided Profits . . .	2,615,367.03
Cash and Exchanges	12,928,717.25
Due Depositors	80,025,823.75
Customers Liability, Account of . .	1,124,456.35
Acceptances and Letters of Credit . .	1,124,456.35
U. S. and Munic. Secur. Book Value	6,910,231.03
U. S. and Munic. Securities, Book Value	6,910,231.03
Other Securities	9,172,045.80

Instructions: Prepare a Statement of Condition for the State Bank as of November 15, 1920. In preparing this statement follow the form shown in Illustration No. 93.

Exercise No .151

The ledger of the United States Trust Company of New York shows the following asset, liability and proprietorship balances on January 1, 1921:

Deposits	$47,452,424.56
Accrued Interest Receivable	431,623.60
Time Loans on Collateral	10,092,432.00
Interest Accrued on Deposits . . .	515,023.32
Stock and Bonds Investments . . .	10,489,780.00
Demand Loans on Collateral	22,062,972.98
Unearned Interest on Bills Purchased	44,453.44
Reserved for Taxes and Expenses . .	208,000.00
Cash in Vault and in Banks	9,557,636.65
Undivided Profits	2,717,784.61
Real Estate Owned	1,000,000.00
Bills Purchased	6,477,369.58
Surplus	12,000,000.00
Capital Stock	2,000,000.00
Bonds and Mortgages	4,825,873.12

(*Concluded on page 820*)

Instructions: 1. Prepare a Statement of Condition for the United States Trust Company of New York as of January 1, 1921. In preparing this statement follow the form shown in Illustration No. 94. The explanation of items will be omitted.

2. The United States Trust Company formerly has had its reports prepared in the form shown in Illustration No. 93. Write a brief report addressed to the President of the United States Trust Company explaining the nature of the change you have made in the form of the statement and the reason for this change. In this same report suggest any changes in terminology which you think desirable.

Exercise No. 152

Take the statement which you prepared in the foregoing exercise and construct it to correspond to the form of statement shown in Illustration No. 95.

Exercise No. 153

The President of the United States Trust Company has not been engaged in banking prior to his election to his present position. He is unfamiliar with the banking terminology which you have used in the statement of condition which you prepared in Exercise No. 151. In compliance with his request, write a report addressed to him, explaining clearly the meaning of each item which appears on the Statement of Condition which you previously submitted.

CHAPTER LVII

DIFFERENT TYPES OF FINANCIAL STATEMENTS—Continued

The Statement of Affairs

In the preparation of a Balance Sheet, it is assumed that the business for which it is prepared is to continue in operation. Accordingly the assets are stated at their value to a going concern and the liabilities are listed without reference to the priority of their claim on the assets since it is assumed that all liabilities will be paid. But the financial condition of a firm may be such that it can not continue to operate. It may have insufficient property to pay its debts and may be forced to liquidate and distribute the proceeds derived from the liquidation to its creditors. Before the liquidation takes place, it is customary to prepare a statement which indicates to the creditors the probable results of the liquidation. This statement is usually termed a "Statement of Affairs."

The Statement of Affairs differs from the Balance Sheet (1) with reference to the method of valuing the assets, and (2) with reference to the order in which the liabilities are listed. It shows the assets valued at the amount which it is expected will be realized from their sale. This may be less or more than their value to the business as a going concern. To illustrate, furniture and fixtures costing $550.00 may have an estimated life of ten years and a scrap value of $50.00. If the straight-line method of depreciation is used, $50.00 will be charged for depreciation each year. At the end of five years $250.00 will have been credited to the reserve for Depreciation account and the asset will have a book value of $300.00. This is the value at which it will be placed on the Balance Sheet of the firm. If, however, the firm is forced to liquidate, it is very possible that the furniture and fixtures can not be sold for more than $200.00. Second-hand equipment must usually be sold at a low price. On the Statement of Affairs, the furniture and fixtures will be stated $200.00, since this is its value in liquidation. On the other hand, the business may have purchased land ten years ago for $20,000.00 which now has a sale value of $25,000.00. On the Balance Sheet, the land will be shown at its cost of $20,000.00, but on the Statement of Affairs it will be shown at its sale value of $25,000.00. In the same manner the estimated sale price of each asset will be determined and shown on the Statement of Affairs. In the case of most assets, this will be less than the book value.

On the Balance Sheet, the liabilities are usually listed in the order in which they will be paid. On the Statement of Affairs they are listed in the following order:

1. Unsecured claims.
2. Fully secured claims.
3. Partially secured claims.
4. Preferred claims.

Illustration of the Statement of Affairs

On September 30, 1920, Colby & Hodge, announce their inability to meet their obligations and make an assignment for the benefit of their creditors. From their records the following financial statement is prepared:

Assets	
Cash on Hand	$ 4,500.00
Notes Receivable	9,000.00
Accounts Receivable	3,000.00
Merchandise Inventory	22,000.00
Stocks and Bonds	35,000.00
Deficiency	7,300.00
Total Assets	$80,800.00
Liabilities	
Accounts Payable	$32,000.00
Notes Payable—Merchandise Creditors	26,000.00
Notes Payable—Bank	22,000.00
Taxes and Wages of Employees	800.00
Total Liabilities	$80,800.00

From an examination of the records, it is found that the Profit and Loss account has a debit balance of $18,800, which represents the losses to date. The amount to the credit of Colby's Capital account is $13,000.00, but his drawing account shows a debit balance of $10,500.00. Hodge's Capital account shows a credit of $19,000.00, and his drawing account has a debit balance of

$10,000.00. From the foregoing information, it can be seen that the deficiency shown in the financial statement is obtained as follows:

Trade Losses as per Profit and Loss Account			$18,800.00
Colby Capital Account . . .	$13,500.00		
Colby Drawing Account . . .	10,500.00	$2,500.00	
Hodge Capital Account . . .	$19,000.00		
Hodge Drawing Account . . .	10,000.00	$9,000.00	
Total Balance of Capital Accounts			11,500.00
Deficiency			$ 7,300.00

It is estimated that $1,000.00 of the accounts receivable are worthless; that $500.00 of the remainder are doubtful and from these it is expected to realize $200.00. From the inventory of $22,000.00, it is expected to realize $17,000.00. The stocks and bonds are in the hands of creditors pledged to secure the payment of notes. Of these, $25,000.00 are in the hands of banks as security for the $22,000.00 of notes due to banks and $10,000.00 are in the hands of merchandise creditors as part security for the $26,000.00 of notes due them.

The Statement of Affairs for Colby & Hodge will be as in Illustration No. 96.

From this statement it can be seen that, if the assets can be sold for the estimated amount, there will be available $34,400.00 for settlement of the claims of the unsecured creditors which amount to $48,000.00. The unsecured creditors, therefore, will realize a little more than seventy-one per cent of their claims.

The Statement of Affairs at best is only an estimate and therefore should be used with judgment. If properly prepared, it is of value in indicating to creditors what they may expect to realize from liquidation. A consideration of the Statement of Affairs may indicate to creditors that it will be wiser to continue the operations of the business than to liquidate it immediately. Under such conditions, they will have the business continued under the control of a receiver selected by them. As an illustration of a condition when it may be desirable to continue the business, the

COLBY & HODGE

Statement of Affairs, September 30, 1920

	Book Value		Expected to Realize	Deficiency
ASSETS				
Cash on Hand	$4500		$4500	
Notes Receivable	9000		9000	
Accounts Receivable—Good	1500		1500	
Accounts Receivable—Doubtful	500		200	$300
Accounts Receivable—Bad	1000			1000
Merchandise Inventory	22000		17000	5000
Stocks and Bonds	25000	25000		
Less: Fully Secured Liabilities		22000	3000	
Stock and Bonds in Hands of Partly Secured Creditors (See Contra)	10000			
Total	73500		35200	6300
Deduct Preferred Creditors			800	
Balance Available for Unsecured Creditors			34400	
Deficiency			13600	
			48000	
	Book Value		Expected to Rank	
LIABILITIES				
Accounts Payable	$32000		$32000	
Notes Payable—Mdse. Creditors	26000	26000		
Less: Security, Stocks & Bonds		10000	16000	
Notes Payable—Banks		22000		
Stocks and Bonds as Security		25000		
Free Assets (See Contra)		3000		
Taxes and Wages (See Contra)	800			
Total Unsecured Claims			48000	

Illustration No. 96—Statement of Affairs

insolvent company may be a manufacturer with a large amount of partly-finished goods on hand. If the company ceases operations, it may be necessary to sell this partly-manufactured material for scrap. It may be more profitable to continue the operations of the business until these partly-manufactured goods are completed so that they can be sold for finished product instead of scrap. There are other conditions similar to this which may make the temporary continuation of the operations of a business profitable.

The Deficiency Statement

The Statement of Affairs may be supplemented by the "Deficiency Statement." The Deficiency Statement discloses how the deficiency shown by the Statement of Affairs has been caused. It is customary to prepare the Deficiency Statement in account form, but there is no reason why it may not be prepared in report form. The Deficiency Statement for Colby & Hodge in account form is as in Illustration No. 97.

COLBY & HODGE
Deficiency Statement, September 30, 1920

Sundry Losses as per Profit & Loss Account		$18,800.00	*Capital:*		
Loss on Realization:			Colby	$13,000.00	
Accounts Receivable	$1,300.00		Hodge	19,000.00	$32,000.00
Merchandise	5,000.00	6,300.00	*Deficiency as per Statement of Affairs*		13,600.00
Partners Drawings:					
Colby Draw.	10,500.00				
Hodge Draw.	10,000.00	20,500.00			
		$45,600.00			$45,600.00

Illustration No. 97—Account Form of Deficiency Statement

The same information may be shown in report form as in Illustration No. 98.

COLBY & HODGE
Deficiency Statement, September 30, 1920

LOSS ON REALIZATION OF ASSETS AS SHOWN BY APPRAISAL:			
Accounts Receivable		$ 1,300.00	
Merchandise		5,000.00	
			$6,300.00
SUNDRY LOSSES:			
Profit and Loss Account			18,800.00
Total Losses			25,100.00
CAPITAL OF PARTNERS:			
Colby	$13,000.00		
Hodge	19,000.00	32,000.00	
WITHDRAWALS:			
Colby	10,500.00		
Hodge	10,000.00	20,500.00	
Net Capital			11,500.00
Deficiency as per Statement of Affairs			$13,600.00

Illustration No. 98—Report Form of Deficiency Statement

The Statement of Affairs and the Deficiency Statement are complements of each other. They are of limited use and are of chief interest to the public practitioner who may be engaged in a professional capacity in connection with an insolvent business. The preparation of these two statements has been called for frequently in the Certified Public Accountant examinations given by the various states. In these examinations the Deficiency Statement is often termed the "Deficiency account."

Balance Sheet for a Professional Association

In the 1920 Year Book of the National Association of Cost Accountants the financial condition of the Association as of August 31, 1920, is shown by the Balance Sheet in Illustration No. 99.

BALANCE SHEET, AUGUST 31, 1920

Assets		
Cash on hand and on deposit		$1,232.23
Members' Dues Receivable		1,007.00
Furniture and Fixtures	$1,424.26	
Interior Alterations	129.24	1,553.50
DEFERRED CHARGES:		
Organization Expense	433.68	
Publication Department	100.00	
Stationary	150.00	
Certificates and Membership Cards	200.00	883.68
Total		$4,676.41
Liabilities		
Accrued Liabilities		$ 481.56
Dues Collected in Advance		2,890.50
Total		$3,372.06
Excess of Income over Expense		1,304.35
Total		$4,676.41

Illustration No. 99—Balance Sheet, National Association of Cost Accountants

The National Association of Cost Accountants is an organization the fundamental object of which is "to bring together and to promote cordial understanding among all persons interested in cost accounting." It is supported by the dues of the members. Consequently, there is no capital investment and the net worth of the association represents the "excess of income over expense." The association is not buying and selling a commodity; hence it has no inventory of merchandise. Its only inventories are those of supplies which are shown under "Deferred Charges," since they will be consumed in the future activities of the association.

The Balance Sheet of the American Institute of Accountants, as shown in the 1920 Year Book of the Association, is as shown in Illustration No. 100.

GENERAL FUND—AMERICAN INSTITUTE OF ACCOUNTANTS
Balance Sheet, August 31, 1920

Assets		
Cash:		
In bank and on hand		$ 2,894.62
Investments:		
$5,000—U. S. Liberty Loan—Md. conv. 4¼s	$5,000.00	
5,000—U. S. Victory Loan—4¾s	4,990.50	
100—U. S. Liberty Loan—Third 4½s	100.00	
5,000—Penna. R. R. Co.—Gen'l Mtge. 5s	4,556.25	
4,000—Anglo-French 5s	3,890.00	18,536.75
Furniture, etc., net of depreciation		742.62
		$22,173.99
Liabilities		
Preferred Stockholders of Accountancy Publishing Co., dividends unclaimed		$ 501.42
Initiation Fees, subject to election		4,475.00
Dues of Members, prepaid		290.00
		$5,266.42
Surplus		
Balance, September 1, 1919	$17,332.36	
Deduct:		
Excess of expenditures for the year as annexed	424.79	16,907.57
		$22,173.99

Illustration No. 100—Balance Sheet, American Institute of Accountants

The American Institute of Accountants is the national organization of the public accountants of the United States. It will be noticed that a considerable surplus has been accumulated and that this has been invested in governmental and industrial bonds. The item of "initiation fees, subject to election" arises from the requirement of the Association that all applicants for admission must accompany their application with a remittance for their initiation fees. Until the applicant is elected, this amount is held in a special account.

The English Balance Sheet

In England the liabilities are shown on the left-hand side of the Balance Sheet and the assets on the right-hand side. This is a custom of long standing and this form has been incorporated into certain laws which tends to perpetuate its use. Other than reversing the position of the assets and liabilities, the English Balance Sheet is made in the same form as the American. The English Balance Sheet is shown in skeleton form in Illustration No. 101.

THE ENGLISH COMPANY
Balance Sheet, Date ......

LIABILITIES:			ASSETS:	
Current	......		Current	......
Fixed	......		Deferred Charges	......
			Fixed	......
Total Liabilities		......		
Proprietorship		......		
Total Liabilities and Proprietorship		......	Total Assets	......

Illustration No. 101—English Form of Balance Sheet

The Statement of Earnings of a Bank

The "Statement of Earnings" of a bank corresponds to the Statement of Profit and Loss of an industrial firm. The Statement of Earnings is shown in skeleton form in Illustration No. 102.

THE CHASE NATIONAL BANK OF THE CITY OF NEW YORK
Statement of Earnings for Month of ......

RECEIPTS:		
Interest		....
Discount		....
Commissions		....
Exchange (domestic)		....
Foreign Exchange		....
Total Receipts		....
Less: Interest Paid on Deposits		....
Gross Earnings		....
EXPENSES:	....	
TAXES:	....	....
Net Earnings		....
Losses Charged Off		....
Add Recoveries on Old Losses .		....
Dividends Paid		....
Remainder of Net Earnings for Period		....

Illustration No. 102—Statement of Earnings of a Bank

The items appearing on this statement are self-explanatory. The expenses, if desired, may be classified to indicate their nature, but this information is usually shown by means of supplementary statements and not on the Statement of Earnings.

Statement of Income and Expense of a Professional Association

The statement in Illustration No. 103 is taken from the 1920 Year Book of the National Association of Cost Accountants.

STATEMENT OF INCOME AND EXPENSES
October 14, 1919 to August 31, 1920

INCOME:		
Dues—Members	$11,375.00	
Associates	1,200.00	
Associate Members	2,272.50	
Juniors	1,824.00	
Unclassified	176.00	
Total		$16,847.50
EXPENSE:		
Committee on Applications	156.31	
Membership Certificate Expense	725.80	
Membership Campaign	875.99	
Chapter Organization	184.71	
Chapter Expenses—Chicago	111.95	
Philadelphia	100.00	
Boston	50.00	
Pittsburgh	30.00	
New York	22.83	
Research Department	259.00	
Publication Department	2,351.40	
Convention Expenses	130.95	
General Administrative Expense	193.73	
Office Rent	1,166.76	
Office Supplies and Expenses	1,425.73	
Salaries—Secretary's Office	6,986.10	
Postage	676.36	
Committee on Constitution and By-Laws	95.53	
Total		15,543.15
EXCESS OF INCOME OVER EXPENSE		$ 1,304.35

Illustration No. 103—Statement of Income and Expense

Statement of Income and Expense for a Professional Firm

A professional firm receives its income from the services which it renders, and its principal expenses are incurred for the maintenance of its office and the payment of its staff. The skeleton statement in Illustration No. 104, which is prepared for a firm of public accountants, will serve to illustrate the form of a statement of income and expense for a professional firm.

JONES & BAKER
Statement of Income and Expense for Month of January, 1921

EARNINGS:		
Retainers	....	
Audits	....	
Installations	....	
Tax Work	....	
Consultation	....	
Total Earnings		....
EXPENSES:		
Salary of Staff	....	
Rent	....	
Office Salaries	....	
Stationary and Supplies . . .	....	
Telephone and Telegraph . . .	....	
Unallocated Road Expense . .	....	
Membership Fees	....	
Miscellaneous	....	
Total Expenses		....
Net Earnings		....

Illustration No. 104—Statement of Income and Expense for a Professional Firm

The earnings of the firm are classified to indicate the sources from which income is received. The "retainers" is the proportionate part of the yearly fees received from clients who pay the firm a certain amount for their service throughout the year. The other classes of earnings are self-explanatory. In connection with the expenses, there are two items which need to be explaind. Unallocated Road Expense represents traveling expenses incurred by members of the staff which can not be charged to any client. It is customary to charge the traveling expenses incurred in connection with an engagement to the client for whom the work is being done, but certain expenses may be incurred which can not be so charged and these must be borne by the firm. Fees represent the dues of the firm or of members of the firm for membership in professional associations. These fees are charged as an expense of the firm on the theory that the firm benefits from such membership.

Statistical Reports

A great many statistical reports are required in connection with the operation of any business of considerable size. It is impossible to discuss these reports in any detail for their form and content are dependent on the operations of the business for which they are made and, consequently, vary greatly. In subsequent chapters some statistical reports which may be used in connection with the different departments of a business will be explained.

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate the difference between a Balance Sheet and a Statement of Affairs.

2

Explain how a Statement of Affairs and a Deficiency Statement is prepared. Explain the purpose of each.

3

The Balance Sheet of the Hyman Corporation as of December 31, 1920, shows the following items:

Furniture and Fixtures	$ 2,500.00
Land	10,000.00

Ten days later the company finds that it is unable to meet its liabilities and a receiver is appointed. Under his direction a Statement of Affairs is prepared which contains these items:

Furniture and Fixtures	$ 1,500.00
Land	12,000.00

Explain the reason for the different value placed on each of these items on the two statements.

4

The Hyman Corporation owes $10,000.00 of notes to the First National Bank. It has pledged $15,000.00 of bonds as collateral for these bank loans. How will these facts be shown on the Statement of Affairs of the company?

5

The company owes employees $1,000.00. How will this be shown on its Statement of Affairs?

6

Under what conditions may it be to the advantage of the creditors to continue the operation of an insolvent business at least temporarily?

7

On the Balance Sheet of the National Association of Cost Accountants as shown on page 829, the item of "Inventory" does not appear. Explain.

8

On this Balance Sheet proprietorship is not shown. Why?

9

On the Balance Sheet of the American Institute of Accountants, the following items appear:

1. Accountancy Publishing Company, dividends unclaimed	$ 501.42
2. Initiation fees, subject to election . .	4,475.00
3. Dues of members, prepaid	290.00

Explain the meaning of each of these items.

10

Explain and illustrate items similar to each of these which may appear on the Balance Sheet of an industrial firm.

11

In what way does the English Balance Sheet differ from the American Balance Sheet?

12

Explain the principal items which appear on the Statement of Earnings of a bank.

13

Explain and illustrate the principal points of difference between the Statement of Earnings of a bank and the Statement of Profit and Loss of an industrial firm.

14

Explain and illustrate the principal points of difference between the Statement of Income and Expense of a professional firm and the Statement of Profit and Loss of an industrial firm.

15

A bank receives interest on money loaned to a customer. It pays interest on the deposits of another customer. Explain how these two transactions will be shown on the Statement of Earnings of the bank and on the Statements of Profit and Loss of the two customers.

LABORATORY MATERIAL

Exercise No. 154

Samuel Lyon, retail merchant, is unable to meet his obligations and makes an assignment for the benefit of his creditors on June 30, 1920. His ledger shows the following balances:

Merchandise	$ 8,000.00
Real Estate and Improvements	5,000.00
Accounts Receivable	2,800.00
Furniture and Fixtures	560.00
Loan from Harry Smith	15,000.00
Bank Overdraft	1,200.00
Notes Payable	3,500.00
Accounts Payable	4,000.00

Investigation of his supplementary records shows that he has $5,000.00 of merchandise in addition to the $8,000.00 shown on his ledger. Of this, title is held to $1,200.00 by the bank as security for overdraft and $3,800.00 is held by Harry Smith as part security for his loan. Smith also holds a mortgage for full value of the real estate and improvements. Of the accounts receivable, $400.00 are considered bad, and $300.00 are expected to realize 50% of their face value. The merchandise inventory is expected to realize 90% of its book value, and furniture and fixtures are expected to realize 50% of the value at which they are shown on the records.

Instructions: Prepare a Statement of Affairs for Lyon as of June 30, 1920, showing the unsecured creditors the percentage of their claims which they may expect to realize.

Exercise No. 155

The Kingman Society is a professional organization "devoted to the promotion of the science of management." It is supported by the initiation fees and yearly dues of its members. It maintains an office in New York City under the control of a Managing Director who is assisted by clerical assistants and a research staff. It rents its office space, but owns its office equipment and library. It assists in the organization of "Chapters" in the larger cities throughout the country. It issues a quarterly bulletin to its members and holds quarterly meetings. It has a small surplus which is invested in United States Bonds.

Instructions: Prepare in skeleton form a Balance Sheet and a Statement of Income and Expense for the Kingman Society.

Exercise No. 156

The Holmes Construction Company is unable to meet its obligations and is forced into the hands of a receiver. At the time the receiver takes charge, the following Trial Balance is prepared from the company's books:

Cash	$ 600.00	
Buildings	3,900.00	
Land	6,000.00	
Mortgage on Land and Building		$ 7,000.00
Plant and Equipment	20,000.00	
Creditors		60,400.00
Completed Contracts Account (Losses)	18,000.00	
Uncompleted Contracts Account (Inventory of Work in Process)	30,000.00	
Securities	15,000.00	
Accounts Receivable	5,000.00	
General Expenses	6,500.00	
Inventory of Materials	2,500.00	
Profit and Loss	9,900.00	
Capital		50,000.00
	$117,400.00	$117,400.00

The customers for whom the uncompleted contracts are being executed agree to take over the work in process on these contracts for one-half of its book value and release the company from all obligations. They further agree to purchase the materials on hand for $2,200.00. $5,000.00 of the securities is pledged to secure $11,000.00 due creditors, and $10,000.00 is pledged to secure $9,000.00 due creditors. The company owes for taxes on real estate, $150.00, and for salaries and wages of employees, $1,400.00. Neither of these amounts appear on the books. The company has discounted notes of customers at a local bank for the amount of

$2,000.00. $500.00 of these have been dishonored and the bank has informed the company that it will be held liable for these. It is estimated that the amount realized on land and buildings will be sufficient to satisfy the mortgage only, and that plant and equipment will realize 60% of its book value. $2,000.00 of the accounts receivable are estimated to be uncollectible.

Instructions: Prepare a Statement of Affairs and a relative Deficiency Statement for the Holmes Construction Company.

Exercise No. 157

Brown and Smith of London, England, who have been in business separately, decide to enter into partnership on June 30, 1920. The Balance Sheets of Brown and Smith on that date are as follows:

Brown

Accounts Payable	$2,000.00	Furniture	$ 750.00
Capital Account	6,000.00	Accounts Receivable	3,500.00
		Merchandise	3,550.00
		Cash	200.00
	$8,000.00		$8,000.00

Smith

Accounts Payable	$2,500.00	Furniture	$ 600.00
Capital Account	4,000.00	Accounts Receivable	2,500.00
		Merchandise	3,000.00
		Cash	400.00
	$6,500.00		$6,500.00

The partnership agreement contains the following provisions:

1. The partnership is to take over the accounts receivable of Brown at $300.00 and the accounts receivable of Smith at $200.00 less than their face value. The accounts receivable are to be entered on the books at the value at which they appear on the Balance Sheets of Brown and Smith. The deductions of $300.00 and $200.00 are to be charged to the respective partners' accounts and credited to a Reserve for Bad Debts.

2. Only $300.00 of the furniture of Brown is to be acquired by the partnership.

3. Smith is to invest sufficient cash to make his investment equal the investment of Brown.

Instructions: 1. Draft the journal entries necessary:

(a) To show on the records of Brown the transfer of his business to the partnership.

(b) To show on the books of Smith the transfer of his business to the partnership.

(c) To show on the records of the partnership the acquisition of the business of Brown and the business of Smith.

2. Prepare a Balance Sheet of the partnership showing its financial condition at the time of organization.

Exercise No. 158

Prepare in skeleton form a Statement of Earnings for a bank and write a brief report explaining wherein this statement differs from the Statement of Profit and Loss for an industrial firm.

CHAPTER LVIII

RECORDS AND REPORTS FOR THE SALES DEPARTMENT

Importance of Sales Information

The object and purpose of business operations is to make a profit. Sales conclude the process which results in the making of a profit. Until the sales take place, no profit is realized. Whenever sales are profitable, the executives of a business desire to increase these sales. To this end, they try to co-ordinate all the activities of the business. Consequently the activities of the sales department exercise an important influence upon the activities of all the other departments.

In a trading business, the nature and amount of the goods to be purchased depend upon the plans of the sales department. In a manufacturing business, the volume and nature of production is dependent on the anticipated sales. It is useless to make sales unless there are goods to deliver to the customer. On the other hand, it is uneconomical to purchase or produce a greater amount of goods than can be sold, or to purchase or produce goods for which there are no sales demands. In any business, the personnel employed to carry on the activities of the business and the funds needed to finance its operations, is dependent on the volume of the sales and the attendant volume of purchases or production.

It is necessary that adequate information with reference to sales be available for two purposes:

1. The sales department needs information in order to plan and carry on its activities.
2. Other departments need information with reference to sales in order to plan their activities.

It is the purpose of the present chapter to discuss the nature of this information and the method by which it is obtained. To discuss this properly, it is necessary first to consider:

(a) The functions of the sales department.
(b) The organization of the sales department.

The Functions of the Sales Department

The functions of the sales department in any specific business depend to a large extent upon the organization of the business and the methods employed in marketing its product. Its method of marketing will be determined to a considerable extent by the commodities which it sells and whether it is a manufacturer, wholesaler, or retailer. In most businesses, the sales department is responsible for the following:

1. The establishment of selling prices of merchandise. In doing this it will co-operate with the purchasing or production department.
2. The advertising and display of merchandise. This function may be performed by an advertising department which is independent of the sales department.
3. The sale of merchandise. This implies the responsibility of employing salesmen and contracting with sales agencies.
4. The packing, shipping, and delivery of merchandise sold at retail. In a wholesale business, this function may be performed by the sales department, but is usually shifted to a separate department.
5. The study of sales demands with a view towards their possible expansion.
6. Analysis and study of sales to determine the most profitable lines, and the formulation of policies by which to increase the sales of these lines.
7. Planning and scheduling of sales so that the purchasing or production department will know the probable sales requirements and can plan purchases or production to meet these requirements.

The Organization of the Sales Department

To avoid confusion it is desirable to consider separately: **(1)** The organization of the sales department of the manufacturer; (2) the organization of the sales department of the wholesaler or jobber; and (3) the organization of the sales department of the retailer.

The simplest method by which the manufacturer may market his product is to turn over his entire output to one or more sales agents who assume responsibility for his sales. During the last few years, sales agents or brokers have grown up in most manufacturing lines. When this method is followed, the manufacturer does not need any sales organization since the sales agent performs this function for him. If the manufacturer does not employ sales agents he may sell his output to jobbers or wholesalers. In this case he must usually have a central sales office and traveling representatives who call on the customers. If the firm has a national market, it may have district sales offices which are controlled by the central sales office. The manufacturer may go a step further and enter the jobbing field. In this case, he will establish branches which sell to the retailer, and probably he will employ salesmen to call on the retail trade.

The jobber or wholesaler usually has traveling representatives who call on the retail trade, and, in addition, he has salesmen who serve the retailers who visit his showrooms. He has a central sales office which directs the activities of all the salesmen.

The large retailer has his business organized by departments with a separate sales executive at the head of each department, and all these executives are under the supervision and control of one sales executive, usually the merchandise manager. In the small retail business there are various sales clerks who are usually answerable to the owner or the general manager.

Classification of Sales Data

No arbitrary classification of sales data can be given, for the analysis and classification made is determined by the organization of the business and the information desired by the various departmental heads. The customary ways of classifying sales are: (1) By commodities or departments; (2) by selling units; (3) by territories; (4) by salesmen; (5) by terms of sale; (6) by method of delivery. The nature and purpose of each of these classifications will be discussed briefly.

Commodity or Departmental Analysis

One of the most useful classifications of sales is that by commodities. Such a classification gives very definite information with which to check results and plan sales campaigns. If purchases and inventories can be classified in the same manner, it is possible to obtain gross profit on each commodity which affords a very desirable check on the profitableness of each commodity sold. If expenses can be allocated so that they can be classified in the same manner, the net profit made on each commodity is obtained which affords almost ideal cost and profits statistics. In a few lines of business such a classification is possible; for instance, in a business selling only coal, wood, and ice, commodity analyses of sales, purchases, and inventory is easily made and expenses can be allocated to commodities without great difficulty. In a business dealing with many articles, such an analysis is impossible. Consequently, in some businesses it is customary to group items of a similar nature into departments and to classify sales, purchases, and expenses on a departmental basis. For instance, in a large department store, there may be a groceries department, shoe department, men's clothing department, women's department, furniture department, etc.

It is interesting to note that the internal organization usually corresponds to the basic analysis of sales, purchases and expenses adopted. For instance, in the case of the firm selling fuel and ice which has a commodity classification of sales, purchases, and expenses, there would be probably one officer responsible for the business pertaining to each commodity, while in a department store there is a head of each department who is responsible for the handling of the business pertaining to all the sales in his department. Here is another illustration of how accounting must adapt itself to the internal organization of a business concern if it is to provide information which can be used efficiently. Probably in no other business is functional organization and control better illustrated than in the large retail department store, and it is interesting to note that it is here that accounting records and statistics, as an instrument of control, have reached their highest development.

Analysis by Selling Units

In the preceding discussion of the organization of the sales department, it has been explained that some manufacturing concerns establish branches through which they market their goods. When this method is employed, it is exceedingly desirable to know the profit derived from each branch. In order to do this, it is necessary to classify sales, purchases, and expenses by branches. This affords an effective check on the operations of each branch and affords a means to judge the efficiency and ability of the manager of the branch. In many cases the manager is given a percentage of the profits made by the branch. This offers an incentive for him to manage the branch as efficiently as possible. If the business has district sales offices, it may classify its sales by districts that the results obtained by each district may be determined. For instance, a manufacturing company located in Chicago may have district sales offices in Chicago, St. Louis, Denver, San Francisco, New York, and Atlanta. In this case it is not enough for the business to know that its sales have increased $500,000.00 during the year; it wants to know which of the sales offices are responsible for the increase. Analysis may show that some offices have made an increase, while other offices may have made a decrease. This will lead to investigation to determine the cause for the decrease in those offices where a loss of sales has occurred, and an attempt may be made to apply to these offices some of the methods employed by the offices which have made an increase. In any case, such an analysis will clearly show the conditions. In many cases it is not possible to classify purchases and expenses by districts so as to arrive at the profits for each district, but it is possible to classify sales in this manner.

Analysis by Territories

Sometimes it is desirable to have a territorial analysis of sales. The territory used as the basis for the analysis may be a state, or it may be the territory covered by a salesman. Such an analysis may be desirable for the purpose of checking the efficiency of the salesmen or for planning future sales. The conditions in different states may affect the possible future sales. For instance, the poor crops in a particular state may indicate that the probable sales in that state for the coming year will be fifty per cent less than during the preceding year. If sales have been analyzed so as to show the sales in this state during the past years, it will be easy to estimate the loss in sales from this state during the coming year. In the same manner, the probable increase of sales in the prosperous states can be determined. Again, a company may know from observation and investigation, or from statistics which they may have available, that the possible sales of the commodity which they sell in a given territory is a certain amount. If sales are analyzed to show the past sales in this territory, the company can determine how far it fails to obtain the amount of sales which is possible and can judge whether additional effort should be spent in this territory.

Analysis by Salesmen

In a large retail store, it is customary to pay the salesman, in addition to his stipulated salary, a commission on the sales made. To determine the amount of this commission, it is necessary to analyze the sales by salesmen. Such an analysis not only serves as a basis for paying the salesmen but also serves as an efficiency record for the salesmen. The information shown by this record is useful in selecting employes for promotion. Not only retail salesmen but also traveling salesmen for jobbers and manufacturers may be paid a commission on the sales which they make. In some cases the cost of the goods sold by each salesman is determined, and he is given a percentage of the gross profit made on his sales. This method is employed in order to encourage the salesmen to sell the lines of goods on which the greatest profit is made.

Analysis by Terms of Sale

The treasurer of a company must plan to secure the funds which are necessary to pay for the goods purchased and to pay the expenses of the business. A large part of these funds must come from the customers to whom sales have been made. The length of time which the business must wait after sales are made before it will secure payment therefore depends upon the terms on which the sales are made. That the treasurer may estimate the funds which may be secured from the sales made, it is necessary that he know the terms of the sales. It is desirable, therefore, that sales be analyzed to show the terms of sale. In some businesses all sales are made on uniform terms, and in this case the necessity for an analysis by terms is eliminated.

Analysis by Method of Delivery

In some businesses goods sold are delivered in several ways. For instance, they may be delivered by mail, parcel post, express, or freight. In order to estimate the cost of delivery of anticipated sales and to plan to have the necessary equipment and personnel to handle the sales made, it is desirable to know the quantity of sales delivered by each method during the past so as to estimate the quantity to be delivered by each means in the future.

Relation of the Sales Analysis to the Accounting Records

It is not always practicable or feasible to obtain from the formal accounting records all the analyses which have been discussed. Some of these analyses may be obtained from statistical records kept in the various departments, or they may be obtained by a central statistical department. The operating department may keep a record of the method of delivery. The advertising manager may have the sales tickets tabulated in his office to indicate sales by territories. Other officials may record other data which they need. In many businesses tabulating machines are used to collect the statistical data needed by the various departments. By means of cards which are punched to indicate various classifications of data, and which are then assorted and assembled, it is possible to obtain various kinds of data. In case considerable statistical information is necessary, the tabulating machines are desirable. The method of using such machines is discussed in a subsequent chapter.

Analysis of Sales Returns and Allowances

In nearly all businesses some of the goods sold are returned by customers, and allowances are claimed by customers because they are dissatisfied for some reason with the goods which they receive. In the proper handling of returned sales and sales allowances, it is necessary (1) that a proper method of handling the claims be followed to prevent the granting of unjust claims; (2) that a proper analysis of such claims be made that the cause of the dissatisfaction of the customer be determined and the responsibility for it be fixed.

Many businesses have a claim department which handles all claims of customers. Usually this department is under the control of the sales department. When a separate department is not maintained, some executive in the sales department is held responsible for passing on the claims. Before granting a claim, proper investigation should be made to determine its validity. If a customer claims a shortage in the goods shipped, the shipping and billing records should be examined. If an overcharge is claimed, a comparison should be made of the sales invoice and the price quoted. If it is claimed that the goods were below quality, every effort should be made to determine the quality of the goods shipped. If it is claimed that the goods arrived in a damaged condition, it should be ascertained whether they were improperly packed or improperly handled by the transportation company. The investigation of a claim will result in one of the following decisions:

1. That the customer's claim is valid.
2. That it is impossible to ascertain whether the claim is fair or unfair. This may be due to inadequate records on the part of the seller, or it may be

because the facts can only be in the possession of the customer, or because the records of the seller and the customer disagree, and it is impossible to determine which is correct.

3. That the customer's claim is not one to which he is entitled.

In the first case, the claim should always be allowed. In the second case, most business firms follow the policy to give the customer the benefit of the doubt. It is thought that the good will of the customer is worth more than the loss incurred in connection with the claim. In the third case, if the customer is sincere and believes he is entitled to the claim, it may be wise to grant it and retain his good will. The size of the claim and the value of his business will help to determine the decision. If it is thought the claim was made with the purpose of obtaining that to which the customer is not entitled, it should not be allowed. A customer who will make such a claim is an undesirable one, regardless of the amount of his business. The task of the claim department is a difficult one, for it is often hard to obtain information by which to determine the justness of the claim, and it is harder still to determine the intention of the customer in making the claim.

If, as a result of the claim, the customer is permitted to return merchandise, or an allowance is granted to him, the cause for the claim should be determined so that responsibility for it may be fixed. In many businesses, sales returns and allowances are treated as a deduction from sales and no attempt made to show the cause for them. Claims may be due to the fact that the goods were improperly manufactured and are therefore of inferior grade. In this case, the responsibility should rest on the production department. Their poor quality may be due to a lack of care on the part of the purchasing department in the selection of goods for purchase. The shipping department may have packed them improperly with the result that they arrive in a damaged condition; or the shipping department may have packed the wrong articles or the wrong number. The sales department may have misrepresented the goods inadvertently or consciously. In any case it is necessary to determine the cause and to fix the responsibility if measures are to be taken to remedy the condition. It is desirable to reduce such claims to a minimum, not only because of the loss incurred by granting them, but also because such claims indicate dissatisfaction on the part of customers and may lead to a loss of their trade.

In determining the amount of the claims for which each department is responsible, it is necessary to keep a record which will show an analysis of claims by causes. This record is usually independent of the financial records. When a claim is allowed, a credit memorandum is issued to the customer. A copy is retained, and on this copy there should be indicated the cause for the claim. From this copy an entry can be made on a columnar record which is ruled to show the principal causes of claims as determined from past experience. A miscellaneous column will take care of unusual cases. At the end of each month the columns of this record will be totalled to determine the amount of the claims due to each cause. In a small business the returned sales and the sales allowances may not be sufficiently large to make desirable such an analysis as that outlined above. In any business where they amount to any considerable sum, such an analysis is expedient.

In the ledger records sales returns and allowances may be recorded in one account, but this is not desirable since a sales allowance is a total loss, while a sales return represents only a partial loss, since the goods returned have some value. An increase in sales allowances is more significant, therefore, than an increase of sales returns, although both are undesirable. In a small business, or one in which there are few returns and many allowances, or vice-versa, one account may be satisfactory. If the Sales accounts are classified by departments, commodities, or by any of the other means explained in the foregoing discussion, it is necessary that the sales returns and sales allowances be classified in the same manner and accounts be set up to maintain this classification.

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate the importance of information with reference to sales to the different departments of the business.

2

State and illustrate the principal duties of the sales department. In what way may these duties differ in a mercantile business, such as a department store, from those in a manufacturing business?

3

Explain the organization by which the sales department may carry out its duties: (a) in a retail store; (b) in a wholesale firm; (c) in a manufacturing business.

4

The New York Department Store has ten departments. There is a head of each department who is paid a nominal salary and, in addition, is given a percentage of the profits of the departments. Explain what is necessary to make this plan effective.

5

"It is interesting to note that the internal organization usually corresponds to the basic analysis of sales, purchases, and expenses adopted." Explain and illustrate.

6

The American Manufacturing Company has ten branches, each of which is under the management of a branch manager. It desires to encourage the branch managers to exercise more efficient administration by giving them an interest in the profits of the business. Outline the procedure which will be necessary to accomplish this.

7

The same company has a traveling salesman in each state. The plan devised for paying the branch managers has produced so satisfactory results that the management of the company desires to put into effect a similar plan for paying the traveling salesmen. Explain how this would be accomplished and in what way it would be different from the plan used in paying the branch managers.

8

The New York Department Store, discussed in Question 4, has obtained satisfactory results from paying a bonus to the heads of departments. It desires to work out a similar plan for the payment of the sales clerks in the departments. Explain how this may be accomplished and show in what way the plan used in paying the clerks will be different from the plan used in paying the departmental heads.

9

The treasurer of the New York Department Store desires to estimate the receipts from sales in order to compare these receipts with the estimated disbursements. What information will it be necessary for him to have to determine the cash receipts from sales each month? How will he obtain this information?

10

The customers of the New York Department Store have complained because of the slow deliveries of merchandise which they have purchased from the store. The general manager has requested the superintendent of the delivery department to make plans to give more efficient service in the future. What information will be needed to do this properly? How may he obtain this information?

11

The Harlan Department Store finds that it needs the following analysis of sales: (1) By salesmen; (2) by departments; (3) by terms of sale; (4) by methods of delivery. Explain how each of these analyses may be obtained.

12

The general manager of the National Manufacturing Company finds that in 1919 the goods returned by customers amount to two per cent of the total sales, while in 1920 they amount to six per cent. He censures the sales manager for this condition. The sales manager contends that it is not due to the fault of his department that the goods are returned. How can the responsibility for the increase in the goods returned be determined?

13

Explain and illustrate the duties of a claims department.

14

Explain and illustrate the use which this department will make of the accounting and statistical records in determining the validity of the claims of customers.

15

Explain and illustrate the difference between a sales return and a sales allowance and state how this difference should be shown in the accounting records.

LABORATORY MATERIAL

Exercise No. 159

The S. S. Pierce Grocery Company, a wholesale grocery firm, is planning a reorganization of the duties and the personnel of its various departments. You are requested by the president of the company to prepare a brief report stating the general duties of the sales department of such a business and the form of organization which you think adapted for carrying on these duties.

Instructions: Write the report requested, stating the qualifications which you think should be made, considering that you are not familiar with the internal organization of the company. Also state to the president what you think is necessary before you can write him a detailed report, and explain the value of such a detailed report in the construction of an accounting system for the company.

Exercise No. 160

On December 31, 1919, the ledger of the Marshall Mercantile Company shows a credit balance in the Profit and Loss account of $40,000.00, and a Merchandise Inventory account, based on inventory of merchandise at selling price, of $70,000.00, but an inventory of the same merchandise at cost would amount to $54,000.00.

The expense and income accounts for the year show the following balances:

Sales	$200,000.00
Discount on Sales	3,000.00
Sales Returns and Allowances	1,000.00
Purchases	150,000.00
Freight on Purchases	6,000.00
Discount on Purchases	1,200.00
Shipping Expenses	4,000.00
Selling Expenses	10,000.00
Office and General Expenses	20,000.00
Insurance	600.00
Taxes	400.00
Depreciation on Office Equipment	200.00
Depreciation on Buildings	800.00
Bad Debts	600.00
Interest on Notes Receivable	3,800.00
Interest on Notes Payable	1,400.00

On December 31, 1920, the accounts are closed on the basis of an inventory taken at selling price, amounting to $80,000.00. If this inventory has been taken at cost price, it would have amounted to $60,000.00.

Instructions:. 1. Prepare a Statement of Profit and Loss showing the correct profits for the year.

2. Prepare a statement showing the Profit and Loss account with the balance at the beginning of the year and the entries and adjustments which should be made in it during the year with the resulting profit at the end of the year.

Exercise No. 161

The Coonley Mercantile Company is the owner of a department store. You are requested to examine its method of analyzing and recording sales. After an examination of the company's organization and operating methods, you decide that it should maintain the following sales classifications: (1) by salesmen; (2) by departments; (3) by methods of delivery; (4) by terms of sale.

Instructions: Write a report to Mr. Howard Coonley, President of the Company, explaining the benefit to be derived from each of these classifications and the method by which it may be accomplished.

Exercise No. 162

On January 1, 1920, the Balance Sheet of The P. E. Curry Co. is as follows:

ASSETS:			
Cash		$ 500.00	
Notes Receivable		3,000.00	
Accounts Receivable		5,000.00	
Merchandise Inventory		4,000.00	
Furniture and Fixtures		2,000.00	
Total Assets			$14,500.00
LIABILITIES:			
Notes Payable		3,000.00	
Accounts Payable		6,000.00	
PROPRIETORSHIP:			
Capital Stock	$5,000.00		
Surplus	500.00	5,500.00	
Total Liabilities and Proprietorship			$14,500.00

(*Concluded on page 851*)

The transactions for January are as follows:

Sales on Account	$8,000.00
Purchases on Account	6,000.00
CASH RECEIVED:	
Collected from Customers	4,000.00
Collected on Notes Receivable	2,000.00
Cash Sales	600.00
CASH DISBURSED:	
Interest on Notes Payable	60.00
Salaries (Administration)	500.00
Rent	200.00
Sundry Expenses	300.00
Accounts Payable	5,000.00
MISCELLANEOUS:	
Notes Payable Renewed	1,500.00
Sales Allowances	200.00

The cost of the goods sold during the month is $5,500.00.

Instructions: 1. Make journal entries to give effect to the foregoing transactions.

2. Prepare a Balance Sheet and a Statement of Profit and Loss as of January 31, 1920.

CHAPTER LIX

RECORD AND REPORTS FOR THE SALES DEPARTMENT (Continued)

Different Kinds of Sales

It is the function of the accounting records to show the effect on the financial condition of the business of the sales made by the business. Their effect is dependent on the terms and conditions on which they are made. Consequently these terms and conditions must be considered in making the accounting records. With reference to the method of recording them, sales may be classified as:

1. Sales on Account.
2. Cash Sales.
3. C. O. D. Sales.
4. Installment Sales.
5. Sales on Approval.
6. Sales for Future Delivery.
7. Branch Sales.

Sales on Account

Sales on account are those which are payable within a short time after the consummation of the sale. In the retail trade, payment for sales on account is usually made on the first day of the month following the one on which the sale is made. For instance, sales may be made by a grocery store to a customer each day in the month. Payment is due for the total thereof on the first day of the following month. In most cases, except the retail trade, it is customary to state the terms on the invoice. In many cases an option is provided by offering a discount for prompt payment with the net amount due at a later date. For instance, the terms may be 1/10, n/30, or 2/10, n/60. The rate of discount, as well as the length of time before the net amount is due, varies in different businesses, and even with reference to different lines of goods in the same business. In some lines no discount is offered, all terms being for net payment.

There are no particular problems involved in recording sales on account. At the time the sale is made, Accounts Receivable is debited and Sales credited. If a discount is offered and is taken, proper entry for it must be made at the time of payment by debiting Sales Discount for its amount.

Cash Sales

In a retail business cash sales are usually entered in the cash records daily as a total. The total is obtained by adding the duplicate cash sales slips for the day. To make the monthly posting easier a "Cash Sales" column may be introduced in the cash book and the total of this column posted to Sales at the end of the month. When this method is followed, no entry is made in the sales record. The total sales for the month will be shown in the Sales account in two amounts, the credit sales being posted from the sales record, and the cash sales from the cash record. This method is possible only when it is not desired to classify the sales. If a classification of sales is made as between commodities, departments, or any other basis, it is necessary to have a classification of cash sales as well as of sales on account. It is usually not feasible to have as many cash sales columns in the cash record as there are classes of sales; consequently the cash sales will be recorded in the sales record for purposes of analysis. In this case, there will be but one "Cash Sales" column in the cash record. The total of this column will be posted to the credit of Cash Sales. In the sales record there will be one column for Cash Sales which will show the total cash sales. The individual cash sales will be distributed in the analysis columns and will be included in the totals of those columns which will be posted to the credit of the respective Sales accounts. The total of the "Cash Sales" column will be posted to the debit of Cash Sales and should balance the credit to this account which is posted from the cash record.

In a wholesale or manufacturing business no distinction is made in recording cash sales and sales on account. In each case the sales invoice is entered in the sales record, which results in a debit to Accounts Receivable and a credit to Sales. The cash received in payment is entered in the cash record, which results in a debit to Cash and a credit to Accounts Receivable, and so cancels the debit made from the sales record. Since cash sales are usually not frequent in a wholesale or manufacturing business, this method is both desirable and feasible. In such a business the one who makes the record of the invoice does not as a rule make the record for the cash, and it is more convenient to treat the sale and the payment as distinct and separate transactions. In a retail business it is obviously inexpedient to make two entries for every cash sale made. Instead, only the total of the daily cash sales is entered.

C. O. D. Sales

When a sale is made with the agreement that the purchaser is to pay for the merchandise when it is delivered, the terms are said to be *collect on delivery,* or, as it is more frequently stated, C. O. D. The procedure of handling C. O. D. sales in both the wholesale and retail trade is explained and illustrated in Chapter XXIX, Volume I.

Installment Sales

Installment sales are now made in many lines of merchandise. They consist in making sales for which the payments are deferred and made in installments. Sales on the installment plan are made of real estate, furniture, books, correspondence study courses, and many other commodities and services. By the use of this plan, sales can be made to a class of people who would probably never accumulate sufficient money to pay the entire cost of the article at one time. Such sales are made under varying conditions. In most cases, the vendor secures the notes of the vendee, payable on the installment dates, and, in many cases, the vendor retains titles to the property until the installments are paid.

If a business makes other than installment sales, the claims against customers arising from the installment sales should be recorded separately from the accounts receivable arising from the other sales. There are two reasons why this separation should be made. First, accounts receivable arising from sales made on customary terms are classed as a current asset, but claims against customers arising from installment sales can not be so classed, for they may not be paid for many months. Usually there are some payments which are to be made at the end of each month. Consequently a small part of the total claims outstanding may be considered as a current asset, but the major part of these claims must not be so shown. Since they do not have the characteristics of a fixed asset, it is desirable that they be shown under a separate heading on the Balance Sheet. Secondly, it is always impossible to collect the total installments due from all customers. Even though careful scrutiny be exercised over the credit extended, there will always be customers who will default in payment. As a consequence, there will be a considerable loss from bad debts unless the manufacturer or retailer protects himself by retaining title to the property sold, and, even in this case, there will be considerable expense in securing possession of the property and in re-selling it. In many cases the expense will be prohibitive, and it will be regarded as better to lose the balance if it be small in amount. It is necessary, therefore, in valuing the amount due on installments, to make a liberal allowance for losses arising from bad debts and the expense incurred in making collections.

If a business makes extensive installment sales as well as sales on regular terms, it is desirable to maintain separate records for the installment transactions. Because of the frequent payments on account, it is often expedient to have a different form of record for accounts of the customers to whom sales have been made on installment.

Sales on Approval

Merchandise may be delivered to customers "on approval" with permission to return it within a specified time. Such sales are made frequently by publishing companies and retail stores. The method of recording such sales depends upon the terms of the sale. When books are sent on approval by a publishing company, it is usually with the agreement that the book is to be returned or payment made within a specified time. Under such conditions it is better not to record the sale until payment is made. A copy of the sales invoice can be filed under the date when the book should be returned or the payment made. If payment is made, the invoice is removed from the file and the sale recorded. If the book is returned, the invoice is removed from the file, but no entry need be made in the records. The sales invoice may be filed for future reference, so that, if a customer abuses the privilege of securing books on approval, this can be detected from the file.

When wearing apparel is delivered to a customer on approval by a retail store, it is usually to a customer who has a "charge account," and, if the merchandise is retained, it is to be charged to his account. If the customer takes but one article with the permission to return it under certain conditions, it is customary to charge his account at once, and, if the article is returned, a credit is made to his account. The reason for this procedure is two-fold: (1) if only one article is taken, in the majority of the cases it is retained, and consequently it is not difficult to make the necessary credits arising from those which are returned; (2) in most cases, if the customer decides to retain the article, he makes no report; consequently no checking up is necessary if it is charged to his account at the beginning. If the customer takes two or more articles of merchandise with the intention of choosing the one he desires, no entry in the financial records can be made until the choice is made and the other articles returned. In the meantime a statement of the merchandise in his possession will be kept in a tickler file. As suggested in the case of a publishing company, it is often wise for the retail store to keep a record of the customers who return merchandise which has been purchased on approval so that those who abuse the privilege may be detected.

Sales for Future Delivery

In some lines of business, orders for merchandise are received several months in advance of the date specified for delivery. There has been much discussion by accountants and business men with reference to when such orders may be recorded as sales. Legally they may be so recorded whenever a legally enforceable claim arises against the purchaser. This time is dependent upon the conditions under which the order is placed. Experience shows that such orders are apt to be canceled at any time before the goods are shipped to the customer, and, regardless of the legal rights of the seller, it is usually not expedient to attempt to enforce the claim against the customer arising under a canceled order. In most cases, it is better not to enter as sales orders for future delivery until the goods are shipped to the customers. There are of course special cases where entry can be made before the goods are shipped. One illustration of such cases is found in the printing business, where it is customary for the customer to leave his product in the ware-rooms of the vendor long after he has been invoiced for it. In this case, entry for the sale will be made when the customer is invoiced, regardless of the time of delivery.

Branch Sales

Merchandise may be transferred from the parent company to branches on various terms and under various conditions. From the viewpoint of accounting, it is preferable that it be transferred at cost, but there may be administrative reasons why this method is not desirable. Consequently it may be transferred at selling price or at an arbitrary price, which is more than cost, but less than selling price. In any case, such a transfer does not represent a sale in the usual meaning of this term and should not be so recorded. It represents only a change in the location of the merchandise stock. The accounting precedure involved in the handling of goods shipped to branches will be explained in the chapter on Branch House Accounting.

Planning Future Sales

The accounting records show what past sales have been, and this information is of value in judging the success of the past operations of the sales department. But it is not enough to know the past; successful administration demands that plans be made for the future. To plan future sales it is necessary to estimate the volume and nature of the sales to be made. This estimate is necessary for two reasons: (1) to plan the operations of the sales department, and (2) to plan the operations of the other departments so that they will co-ordinate their operations with the operations of the sales department. In making an estimate of sales, it is necessary to consider (a) past sales as shown by the accounting records; (b) the market conditions which may cause smaller sales or make possible larger sales in the future; (c) changes in the plans of the business which effect the volume or nature of the sales.

When market conditions are stable, past sales may be a fair indication of future sales. In all cases they must be considered. What has been done serves as a check on what can be done. In the case of either rapidly rising or rapidly falling prices, future sales may vary materially from past sales, and the future condition of the market must be given careful consideration. In estimating the effect of these conditions, it will be very helpful if past sales have been recorded so as to indicate the effect of changing market conditions. If the business has made plans with reference to marketing its product or with reference to new products to be produced, which will affect the volume or nature of sales, this effect must be estimated. In making this estimate, it is desirable to have statistics with reference to past sales, which will indicate the effect of past plans in such a way as to serve as a basis of judging the effect of the contemplated plans.

From the foregoing discussion it can be seen, that in planning future sales careful consideration must be given to past sales. In designing sales records and reports, this use of sales statistics should be borne in mind that it may be possible to obtain information, which will serve both to show past operations and to be used as the basis of future plans.

Sales Reports

The sales reports, which are desirable, depend on the organization of the business and the classification of sales, which is maintained. The reports in any case should afford information which will make possible the following:

(a) Comparison of gross sales by periods.

(b) Comparison of the ratio of net profit to sales by periods.

(c) Comparison of the ratio of gross profit to sales by periods.

(d) Comparison of the ratio of operating expenses to sales by periods.

The desirability of comparing gross sales by periods should be apparent. It is only by such comparisons that it is possible to judge whether the volume of business is increasing or decreasing. But it is not to secure sales, but a profit, for which the business operates. An important comparison, therefore, is the ratio of net profit to sales. By this comparison it is possible to see if the change in the volume of sales is producing a desirable or an undesirable change in net profit. It is also possible that the ratio of net profit to sales may show an appreciable change while the volume of sales remains stationary. The difference between gross sales and net profit is made up of two items: (a) cost of goods sold, and (b) operating expense. If the ratio of net profit to sales fluctuates, it is desirable to determine the cause of the fluctuation. This necessitates a comparison between the cost of goods sold and sales, and a comparison of operating expenses and sales. Instead of comparing the cost of goods sold with sales, a comparison may be made of sales and gross profit on sales. Since gross profit on sales is the difference between sales and cost of goods sold, a comparison of gross profit with sales serves the same purpose as a comparison of cost of goods sold and sales.

To illustrate: the sales of the X Manufacturing Company for the year 1919 are $400,000.00 and for the year 1920 are $600,000.00. The net profits for the year 1919 are $100,000.00 or 25% of sales, while the net profits for 1920 are $90,000.00 or only 15% of sales.

The sales have increased 50%, but the net profits have decreased both in total and in proportion to sales. An examination shows that the gross profit for 1919 is $200,000.00, or 50% of sales, while in 1920 it is $240,000.00, or 40% of sales. This shows that the cost of goods purchased has increased faster than has the selling price of goods sold. Further examination shows that the operating expenses for the year 1919 are $100,000.00 or 25% of sales, and in 1920 the operating expenses are $150,000.00 or 25% of sales. Since the operating expenses bear the same ratio to sales during 1920 as during 1919, it is evident that the failure to receive a larger profit from the increased sales is due to a failure to maintain a satisfactory margin of gross profit.

The indications are, that prices have been rising, which has increased the cost of merchandise purchased, and, because of competition or a failure to realize the situation, the sales price has not been increased in proportion. This is a condition which is apt to occur in a period of rising prices if care is not exercised. This condition may be due to the failure to increase prices, or it may be due to improper buying on the part of the purchasing department. In any case there should be a report for the use of both the sales and the purchasing departments which will show a comparison of gross profits and sales that any unfavorable tendency may be immediately detected.

Many times a comparison, such as the one made for the X Manufacturing Company, will disclose that the increased sales are obtained as a result of a more than proportionate increase of operating expense. This condition may result from large expenditures for advertising or for increased expenditures for salesmen and sales expense.

The comparison explained in the foregoing discussion can be satisfactorily shown by means of a comparative Statement of Profit and Loss showing comparisons in percentages. Illustration No. 44 shows the form of this statement.

If a departmental analysis of sales is maintained, a report will be made showing the gross profit on sales for each department. The form of this report is shown in Illustration No. 43. In some cases the operating expenses are allocated to departments. It is then possible to show the net profit by departments. The form of report shown in Illustration No. 43, if extended to include the operating expenses, will serve to show the net profit by departments.

If sales are made through branches or different sales units, it will be desirable to have a report which will show comparisons by units. To illustrate, the X Manufacturing Company, which markets its product through ten branches, can use to advantage the report shown in Illustration No. 105. The value of the comparisons shown by this form is evident.

MONTHLY REPORT OF SALES

Month of........................192.....

Sales Unit	This Month	Estimated This Month	% Inc. or Dec.	Last Month	% Inc. or Dec.	To Date This Year	Estimated To Date This Year	% Inc. or Dec.	To Date Last Year	% Inc. or Dec.
Detroit Branch........										
New Orleans Branch										
Boston Branch........										
New York Branch....										
Chicago Branch.......										
Seattle Branch										
Philadelphia Branch										
Portland Branch......										
Los Angeles Branch										
TOTAL..........										

Illustration No. 105—Monthy Report of Sales

Illustration No. 105 shows a comparison of gross sales by branches. Similar comparisons can be made for net profits by branches and operating expenses by branches. Forms of reports for making these comparisons are shown in Illustrations No. 106 and No. 107.

MONTHLY REPORT OF SELLING EXPENSE

Month of........................192....

Sales Unit	This Month	Estimated This Month	Per Cent Increase or Decrease	Ratio Estiim. Expense to Estimated Sale	Ratio Actual Expense to Actual Sales	RatioExpense to Sales to Date This Year	Ratio Exp. to Sales to Date Last Year
Detroit Bch...							
New Orleans Branch.......							
Boston Bch.							
N. York Bch.							
Chicago Bch.							
Seattle Brach							
Phila. Branch							
Portland Bch.							
Los Angeles Branch.......							
Total.........							

Illustration No. 106—Monthly Report of Selling Expenses

The comparisons shown in Illustrations No. 106 and No. 107 can be made for departments, district sales offices or commodities, as well as for branches.

Many other reports may be made in connection with sales. The reports discussed and illustrated are sufficient to indicate the possibilities of such reports.

MONTHLY REPORT OF NET PROFITS

Month of.........................192......

Sales Unit	This Month	Estimated This Month	% Inc. or Dec.	Last Month	% Inc. or Dec.	Same Month Last Year	% Inc. or Decrease	Ratio to Sales For This Yr.	Ratio of Est. Profit to Est. Sales	Ratio of Net Profit to sales Last Yr.
Detroit Branch........										
New Orleans Branch..										
Boston Branch........										
New York Branch.....										
Chicago Branch........										
Seattle Branch........										
Philadelphia Branch ..										
Portland Branch........										
Los Angeles Branch...										
TOTAL......										

Illustration No. 107—Monthly Report of Net Profit

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate why the terms under which sales are made must be considered in making the accounting records.

2

In what way does the recording of sales on account in a retail business differ from the recording of sales on account in a wholesale or manufacturing business?

The New York Department Store makes 25% of its sales for cash. It is necessary that the cash sales be analyzed by departments to make possible the determination of departmental profits. Explain fully how the cash sales will be recorded so as to effect this analysis.

4

Two per cent of the total sales of the New York Wholesale Company are for cash. The sales of the company are analyzed on a departmental basis. Explain how the method of recording the cash sales of this company will differ from recording the cash sales of the New York Department Store.

5

Explain and illustrate the meaning of *installment sales.*

6

Explain why installment sales should be separated from sales made on customary terms.

7

The Universal Publishing Company sends its publications to its customers with the privilege of five days' examination, at the end of which time the books may be returned or payment made. Explain how this company will record its sales.

8

The Chicago Specialty Store deals in quality lines of women's wear. Customers frequently take several articles from the store for examination with permission to select one and return the remainder. Explain how this store will handle these transactions.

9

The sales manager of the Chicago Specialty Store suspects that some of its customers abuse the privilege of taking goods on approval by obtaining goods for a short length of time and then returning the entire amount without making a purchase. He desires some method by which to determine those customers who habitually follow this practice. Explain how this may be accomplished.

10

The X Wholesale Company receives orders for merchandise in April which are to be shipped in August to its customers. When should these orders be entered on the books as sales?

11

The Plimpton Press prints books in large quantities for publishing houses. The books are stored in the warehouse of the company and are requisitioned by the publishing companies when needed. At the end of each month the Plimpton Press invoices each company for all the books that have been shipped to it during the month. At the end of the year each company is invoiced for all the books remaining in the warerooms of the Plimpton Press. Explain when the Plimpton Press should enter these sales upon their books.

12

The Jones Wholesale Company desires to make an estimate of its sales for the next six months. Explain and illustrate what information they should consider in making this estimate. Explain how they will obtain this information.

13

Explain and state the purpose of four important comparisons with reference to sales which may be made on sales reports.

14

The X Corporation finds that in the year 1919 its gross profit is 30% of sales, while in the year 1920 it is only 20% of sales. Explain how this might occur.

15

The Y Wholesale Company finds that its sales during the year 1920 have increased 50%, but that its net profits are smaller than during the year 1919. Explain how you would proceed to determine the cause for this condition.

LABORATORY MATERIAL

Exercise No. 163

The Kingdon Manufacturing Company manufactures ten products. These products are sold through nine branches located so as to cover the entire United States. The company desires to obtain the following information each month: (a) total sales of each product by all branches; (b) total sales of each branch of all products; (c) sales of each product by each branch.

Instructions: Write a report to the general manager of the company which will explain the following:

> (a) The accounts which should be maintained to provide the information which the company desires. If you think part of this information can be obtained in some other way more conveniently than by means of the ledger accounts, explain the method you think desirable.
>
> (b) The monthly reports which should be used to present this information to the general manager.

Exercise No. 164

The following statement shows the sales for each branch of the Kingdon Manufacturing Company for the month of March, 1921, with appropriate comparisons:

MONTHLY REPORT OF SALES

Month of.............................192......

Sales Unit	This Month	Estimated This Month	% Inc. or Dec.	Last Month	% Inc. or Dec.	To Date This Year	Estimated To Date This Year	% Inc. or Dec.	To Date This Year	% Inc. or Dec.
N. York City	109,694.64	126,600.00	—13	89,990.54	22	276,028.76	316,500.00	—13	744,145.79	—63
Atlanta	239,991.44	293,600.00	—14	227,725.39	5	659,035.33	734,000.00	—10	1,423,123.95	—54
El Paso	93,488.52	80,000.00	17	70,771.76	32	240,983.53	200,000.00	20	351,546.69	—31
San Francisco	56,200.31	84,000.00	—33	44,006 22	28	184,226.87	210,000.00	—12	502,727.55	—63
Duluth	58,290.63	80,000.00	—27	62,056 93	— 6	175,863.09	200,000.00	—12	439,058.03	—60
Chicago	63,866.37	70,000.00	— 9	46,039 59	39	147,221.41	175,000.00	—16	376,551.76	—61
Boston	88,723.28	80,000.00	11	68,561.51	29	223,544.35	200,000.00	12	336,995.70	—34
Pittsburgh	54,926.58	50,000.00	10	55,405.49	— 1	147,980.28	125,000.00	18		
Sacramento	162,778.05	142,000.00	15	169,330.00	— 4	541,555.71	335,000.00	53		
Total	927,959.82	1006,200.00	— 8	833,887.43	11	2,596,439.33	2,495,500.00	3	4,174,149.47	—38

Instructions: Write a brief report to the general manager of the company stating what this report indicates with reference to the sales of the company as a whole and what it indicates with reference to particular branches.

Exercise No. 165

The fiscal year of the X Manufacturing Company ends December 31, 1920. The bookkeeper presents a Statement of Profit and Loss to the directors in the following form:

Gross Sales	$570,000.00	
Increase of Inventory . . .	30,000.00	$600,000.00
Cost of Sales:		
Operating expenses, material, and supplies . . .	$514,000.00	
Plant Expense	24,000.00	
Freight on Returned Goods	1,200.00	
Purchases of Finished Goods	20,800.00	560,000.00
Net Manufacturing Profit		$40,000.00
Other Income:		
Miscellaneous Earnings . .	$ 3,000.00	
Profit on Contracts	13,000.00	
Discount on Purchases . .	1,000.00	17,000.00
		$ 57,000.00
Less:		
Discount on Sales	$ 5,750.00	
Rebates and Allowances . .	2,250.00	8,000.00
Net Plant Profit		$ 49,000.00
Less:		
General Expenses	$ 11,000.00	
Interest	3,000.00	14,000.00
Net Profit		$ 35,000.00

The directors are dissatisfied with this report and request you to prepare the Statement of Profit and Loss in proper form. On examination of the records you ascertain the following information:

Inventory, December 31, 1919: Materials, $230,000.00; Supplies, $70,000.00; Finished Goods, $90,000.00.

Inventory, December 31, 1920: Materials, $280,000.00; Supplies, $20,000.00; Finished Goods, $120,000.00.

Material used in factory during the year, $150,000.00; wages, $245,000.00; fuel, $5,000.00; repairs and renewals, $4,000.00.

Other operating expenses, including $50,000.00 of supplies used, $110,000.00.

Instructions: Prepare a Statement of Profit and Loss in proper form from the statement prepared by the bookkeeper and the supplementary material obtained from the records.

Exercise No. 166

The expense and income accounts of the Frazer Mercantile Company for the years 1919 and 1920 show the following:

1919

Merchandise Inventory, January 1, 1919	$150,000.00
Merchandise Purchases	633,000.00
Merchandise Sales, Account	750,000.00
Merchandise Sales, Cash	10,000.00
Commissions to Salesmen	30,000.00
Salaries of Salesmen	30,000.00
Salaries of Sales Clerks	15,000.00
Rental	5,000.00
Stationery and Postage	5,000.00
General Expense (Administrative) . .	22,000.00
Interest	4,000.00
Inventory, December 31, 1920	125,000.00

1920

Merchandise Inventory, January 1, 1920 .	125,000.00
Merchandise Purchases	600,000.00
Merchandise Sales, Account	750,000.00
Merchandise Sales, Cash	10,000.00
Commissions to Salesmen	30,000.00
Salaries to Salesmen	10,000.00
Salaries to Sales Clerks	10,000.00
Rental	5,000.00
Stationery and Postage	3,000.00
General Expense (Administrative) . . .	15,000.00
Interest	1,000.00
Inventory, December 31, 1920	125,000.00

Instructions: 1. Prepare a Statement of Profit and Loss for each year.

2. Write a brief report explaining the reason for the difference in results for the two years.

CHAPTER LX

RECORDS AND REPORTS FOR THE PRODUCTION DEPARTMENT

The Production Problem

In a manufacturing business the goods sold are produced by the company. This necessitates that raw materials be purchased and with the aid of labor and equipment be converted into the finished goods which the company offers to its customers. In the performance of this process care must be exercised to accomplish two results: (1) that the manufacturing operations be directed to insure a sufficient supply of goods on hand to meet the customers' demands; (2) that the manufacturing operations be controlled to insure efficient use of materials, labor, and equipment that the cost of the goods may be as low as is consistent with a satisfactory product. To accomplish these results it is necessary that systematic plans be made, and an organization for the enforcement of these plans be established. In most manufacturing businesses there is established a production department to which is delegated the control of production.

Functions of the Production Department

The functions of the production department will vary with the size of a business, the nature of its operations, and the organization of the business as a whole. The usual functions performed by it, briefly stated, are as follows:

1. Determination of goods to be manufactured. In making this determination, the head of the production department works in co-operation with the sales manager and the other executives of the company.

2. Determination of the quantity of each kind of goods to be manufactured. It exercises this jurisdiction jointly with the sales department.

3. Determination of the equipment to be produced by the company and control of its production.

4. Determination of the materials and supplies needed for production purposes. These are purchased

by the purchasing department at the request of the production department.

5. Determination of the quantity of labor to be employed. The laborers are usually employed by the personnel or employment department.

6. Maintenance of the equipment used in production.

7. Control of the receiving, storing and shipping of materials.

8. Supervision and performance of all manufacturing operations.

9. Supervision of the preparation of the records and reports necessary to the performance of the manufacturing operations.

In the performance of its duties the production department may have the assistance of various auxiliary departments, such as the following:

(a) The purchasing department which purchases the materials, supplies, and equipment required.

(b) The personnel department which employs the labor needed.

(c) The office manager's department which assists in the formulation of office procedures.

(d) The accounting department which has functional control of the accounting procedures employed in the manufacturing operations.

(e) The engineering department which assists in the formulation of manufacturing procedures and the designing of equipment and product.

(f) The maintenance department which is responsible for the repair and maintenance of equipment.

(g) The financial department which has control of the payment of workmen.

In some cases some of these departments, such as the maintenance department and the engineering department, are under the control of the production department, while in other cases they are not.

Organization of the Production Department

In a business which has but one factory, there is an executive head of the production department who is termed the "works manager," "superintendent of production," or "production manager." If the business has two or more factories, there is usually a works manager for each factory and a vice-president in charge of production who is head of the central production department which has supervision and control of the production departments of all the factories. The head of the production department reports directly to the president or the general manager of the company. He has subordinate to him various assistants, the number of which depends on the volume of production and the degree to which scientific production is exercised.

From the viewpoint of the present discussion, the most important department under the executive head of the production department is the planning department which has control of inventories, the initiation of production orders,* and the control of the work in process in the factory. The head of the planning department acts under the direct control and supervision of the production executive and may be under the functional control of other officers, such as the comptroller, who may assist in formulating the records used and the procedure followed by the department. The planning department must work in close co-operation with the accounting department, since each is dependent on the other for a considerable part of the data from which it makes its records.

The factory is usually divided into departments, and there is a foreman of each department who is its administrative head. The foreman acts under the direction of the planning department and the accounting department in the preparation of reports, such as material requisitions and time tickets which these departments must have in the preparation of their records.

There may be various other departments under the control of the executive head of the production department, such as the inspection department, the shipping order department, the rating department, and the traffic department. These will not be discussed here, since they do not exercise an important influence on the records and reports which it is the purpose of the present chapter to discuss.

Control of Inventories.

In explaining the functions of the production department, it has been stated that it is responsible, in connection with the sales department, for the determination of the quantity of each kind of goods to

* A production order is an order issued to the factory directing it to produce a certain quantity of goods which are described on the order.

be manufactured. This is, in fact, one of the most important functions, since it is necessary to produce sufficient goods to meet sales demands, and, at the same time, it is uneconomical and costly to have larger inventories of finished goods on hand than are necessary to meet sales demands, for this ties up capital with the consequent loss of income. It is necessary for the production department to determine, therefore, not only the total quantity of goods which is to be produced during a certain period of time, such as a year, but it is also necessary for it to decide how the production of this quantity is to be distributed throughout the year. For instance, if the purchasing and sales departments determine that it is necessary to produce 5,000 pieces of Article X during a certain year to meet the sales demands of that year, it is manifestly unwise to start the production of all these goods during the first month of the year. This procedure is unwise for two reasons: (1) it will result in the investment of capital in goods during the first month of the year which will not be needed until the last month of the year. A wiser plan is to plan production so that the articles needed will not be produced until the time or shortly before the time they are demanded for shipment to the customer. (2) This procedure will result in using the factory equipment very strenuously during the first months of the year and then may result in having many machines idle during the remainder of the year. It is manifestly unwise to have a large part of the equipment idle during a large part of the year with the consequent discharging of laborers and the disruption of the manufacturing organization in general. The production manager must schedule his production so as to keep it as uniform as possible throughout the year. This necessitates a proper control of inventory with the consequent scheduling of production orders to maintain the inventory desired.

The ideal manufacturing program would be one which provided for delivery into stock each day of the same number of units which are to be shipped to customers that day. It is impossible, however, to estimate sales demands with sufficient accuracy or to maintain production with sufficient uniformity to secure the carrying out of such a program. It is necessary, therefore, to maintain a certain inventory to provide for discrepancies between sales demands and production. To control this inventory so as to maintain it at a minimum amount and yet be able to meet sales demands at all times is one of the most important problems of the production department.

Inventory Records.

The manufacturing process begins with the decision of the management, acting through the production department, that there exists a market demand for a certain product which can be produced by the plant over which the management exercises control. Such a decision may be the result of the consideration of various information depending on the circumstances of the particular manufacturing plant under consideration.

In a small manufacturing business, where it is possible for the owner or manager to supervise actively all functions, a decision that a certain product shall be manufactured might rest upon the following considerations:

1. The manager knows from past records that sales of Item A are approximately 6,000 pieces a year.
2. The finished product in reasonable quantities can be produced in sixty days after the factory is directed to commence production.
3. By looking over the finished stock the management estimates there are now approximately 1,000 pieces available for sale.
4. If sales average about 1,000 pieces every sixty days (annual sales, 6,000), and if it takes about sixty days to produce a lot of 1,000, then since there are now approximately 1,000 pieces available, production should be started on 1,000 more because by the time the new lot is produced the 1,000 pieces now available will have been sold.

Such rough and unaided approximating is possible where the business is small and where the management of the business has only a few different items to think about. In a large business, however, which manufactures several hundreds or even thousands of items, it is impossible for the production manager to remember all the information necessary for a decision to manufacture a certain product. Consequently it is necessary to have records which provide information on which the manufacturing operations can be based. Such records have come to be known as perpetual inventory records, stock records, stock ledgers, or balance of stores. Many manufacturing firms refer to these as "balance of stores," and they will be so termed in this discussion.

The simplest form of a balance of stores record is shown in Illustration No. 108.

BALANCE OF STORES

ITEM ______ *1 inch Cast Iron Elbow Beaded.*

Date	Received	Sold	Balance	Date	Received	Sold	Balance
1921							
4-1			*12,500*				
4-5		*4,000*	*8,500*				
4-15		*1,000*	*7,500*				
4-20		*4,000*	*3,500*				
4-30		*1,000*	*2,500*				
5-1	*10,000*		*12,500*				

Illustration No. 108—Simple Form of Balance of Stores Record

It provides columns for showing: (a) "Date"—in this column is recorded the date of each entry on the record; (b) "Received"—in this column is recorded the amount of the goods received into stock; (c) "Sold"—in this column is recorded the amount shipped to customers on sales orders; (d) "Balance"—in this column is recorded the amount of goods on hand which is obtained by subtracting the goods sold from the beginning balance and adding the receipts. This form of record will show the balance on hand at any particular time.

But in planning production it is necessary to know not only what is on hand, but also how soon this will be sold. It takes a certain period of time to manufacture goods after the production department is directed to manufacture them. Consequently it is necessary to know when additional goods will be needed a sufficient length of time in advance to make it possible for the production department to manufacture them by the time they are needed. As indicated by the discussion on page 871, this necessitates that an estimate be made of the probable sales during the length of a production period. From the "Sold" column in Illustration No. 108, the sales during past periods can be ascertained. Considering the past sales in the light of business conditions under which the sales were made and the probable business conditions in the future, an estimate of future sales can be made. With this data available, the same calculations can be made as were suggested on page 871, where the business is small and production is regulated without the aid of inventory records.

Although the simple form of balance of stores record as shown in Illustration No. 108 is satisfactory in some cases, it is usually found that additional information is necessary in order to plan production. As an illustration of the need of additional information it may be assumed that J. H. Brown orders 4,000 pieces of Commodity A, 3,000 pieces of Commodity B, and 2,000 pieces of Commodity C. By an inspection of the stock records, it is found that there are now on hand 1,000 pieces of Commodity A, 5,000 pieces of Commodity B, and 4,000 pieces of Commodity C. It will be three weeks before it is possible to receive additional pieces of Commodity A from the factory. It may be impracticable because of freight charges or other reasons to ship B and C now and A later. Therefore, shipment of B and C is delayed until A becomes available. Under these conditions there should be some method of indicating on the inventory records that 3,000 pieces of Commodity B and 2,000 pieces of Commodity C are sold, although they are still in stock. If this is not done, these items which are now in stock may be shipped to other customers, under which circumstances it may happen that, by the time A becomes available, either B or C, or both, may not be in stock, thereby delaying shipment to the customer who has the first right to the goods by reason of the prior receipt of his order.

Again, if the order of Brown calls for 4,000 pieces of Commodity A and only 1,000 are on hand at the time the order is received, it should be shown on the inventory record that there is now a shortage of 3,000 pieces so that production can be started on a sufficient number of pieces to make up this shortage and leave an inventory of the size which it is desired to carry. Unless the inventory records are designed to show the receipt of the order from Brown, the shortage which it produces in Commodity A will not be shown, and, by the time goods are produced to fill Brown's order, other orders will have been received which may cause the shortage to continue indefinitely.

To eliminate this difficulty, inventory records have been devised which provide for a "Reserve" or "Applied" column where entry of the customer's order is made immediately upon its receipt. This form of balance of stores record is shown in Illustration No. 109.

To familiarize the student with this type of balance of stores record, the entries appearing thereon will be explained in detail. Suppose that on the day the balance of stores record is opened, April 1st, a physical inventory shows that there are 12,500 pieces in the stock-house bin. This quantity is entered in the fourth or "Balance" column. After looking through the files of customers' orders, it is found that all orders for this particular commodity have been filled so that the quantity of 12,500 is available for sale. This quantity would be entered therefore in the "Available or Shortage"

BALANCE OF STORES

Item ———— *1 inch Cast Iron Elbow, Beaded.*

Date	Received	Issued	Balance	Applied	Available or Shortage
4-1			12,500		12,500
4-5				4,000	8,500
4-10		4,000	8,500		
4-15				1,000	7,500
4-20				4,000	3,500
4-25		1,000	7,500		
4-25		4,000	3,500		
4-30				1,000	2,500
5-1	10,000		13,500		12,500
5-2		1,000	12,500		

Illustration No. 109—Balance of Stores Record with "Applied" Column

column. On April 5th an order is received for 4,000 pieces, and this order is assigned the number *E6784*. The number 4,000 is entered in the "Applied" column and subtracted from the amount in the "Available or Shortage" column, thereby reducing the balance in that column to 8,500. On April 10th the quantity specified on order E6784 is shipped and an entry is made in the "Issued" column, reducing the "Balance" column to 8,500. The other entries for orders received, balance on hand, and quantities shipped are similar to the ones described above. On May 1st 10,000 pieces of stock are received from the factory. This quantity is entered in the "Received" column and added to the quantity in the "Balance" column and the "Available or Shortage" column.

The value of the "Applied" column lies in the fact that as soon as a customer's order is received, it is entered in the "Applied" column and is subtracted from the balance of the "Available or Shortage" column which reduces the quantity available for sale, and so gives notice when stock is being depleted, regardless of whether the customer's order has been shipped or not.

Although Illustration No. 109 provides additional information and consequently affords an additional control over inventory to that provided in Illustration No. 108, there is one situation for which it does not provide. Referring to the entries in Illustration No. 109, it will be seen that between April 5th and May 1st the "Available or Shortage" column shows a balance of less than 10,000 pieces. If it is assumed that 60,000 pieces of this item are sold annually and that it takes on an average sixty days from the time an order is issued to the factory to produce additional items until they are delivered into stock, it will be realized that when the balance available falls to 10,000 items, it is desirable to order additional production, since the 10,000 on hand will all be sold by the time the items ordered from the factory are received into stock. In this case it will be seen that, when the balance on hand fell to 8,500 in April, a new order would be issued to the factory. But the entry under date of May 1st shows that during all this time there were 10,000 pieces in process of manufacture. Obviously it would have been improper, therefore, to have ordered additional items from the factory while these were in process.

The balance of stores record, therefore, should provide a space where record can be made when a production order is entered. Illustration No. 110 shows a balance of stores record which provides such a column. If this form is studied in connection with the discussion given with reference to Illustration No. 109, it should be understood without difficulty. Illustration No. 110 is an example of a balance of stores record adapted for hand posting. Illustration No. 111 is a form adapted for machine posting. The modern tendency is to use machines for posting to subsidiary ledgers. In businesses where a considerable amount of posting is to be done, the use of

(*Continued on page 877*)

BALANCE OF STORES SHEET

ORDERED			RECEIVED		ISSUED				APPLIED		
Date	Quantity	Ord No	Quantity	Price	Quantity	Ord No	Date	Balance	Quantity	Ord. No.	Avail. or Shortage
4–1								12500			12500
4–1	10000	672					4–5		4000	E6784	8500
					4000	E6784	4–10	8500			
							4–15		1000	W8270	7500
							4–20		4000	N9274	3500
					1000	W8270	4–25	7500			
					4000	N9274	4–28	3500			
							4–30		1000	S4620	2500
		672	10000				5–1	13500			12500
5–2	10000	1004			1000	S4620	5–2	12500			
		Car Fwd									

Min. Stock.	Max. Stock	Quan. to Order	Unit. Wt.	No. of Pieces Sold
12500	22500	10000	.5	1918, 125000. 1919, 130000. 1920, 12000.

Item.	Group	Commodity No.
1 inch Cast Iron Elbow, Beaded	101	101006

Illustration No. 110—Balance of Stores Sheet

BALANCE OF STORES SHEET

No. of Pieces Sold				Unit Weight .5		
1919	130,000	Name of Item	1" Cast Iron Elbow Beaded		Min. Stock 12,500	Group 191
1920	120,000	Specifications			Quan. to Order 10,000	Lot. No. 101,006

ORDERED						RECEIVED		ISSUED		Date	BALANCE ON HAND			APPLIED		Available or Shortage
Date	Quan.	Ord. No.	Rec'd.	Previous	Bal. Due	Quan.	Price	Quan.	Ord. No.		Previous	Present	Price	Quan.	Ord. No.	
4-1	10000	672			10000					4-1		12500				12500
										4-5				4000	E6784	8500
								4000	E6784	4-10	12500	8500				
										4-15				1000	W8270	7500
										4-20				4000	N9274	3500
								1000	W8270	4-25	8500	7500				
4-25		672	5000	10000	5000	5000					7500	12500				8500
								4000	N9274	4-28	12500	8500				
										4-30					S4620	7500
5-1		672	5000	5000		5000				5-1	8500	13500				12500
5-2	10000	1004			10000			1000	S4620	5-2	13500	12500				

Illustration No. 111—Balance of Stores Sheet such machines leads to accuracy, speed, and economy. The method of using machines for this purpose is explained in Chapter LXIX.

It will be noted that in Illustrations Nos. 110 and 111 the extreme right-hand column is headed "Available or Shortage." If an order is received which calls for a greater quantity than is available, the difference between the quantity available and the quantity on the order is the shortage and is entered in red ink.

Establishment of Maximum, Minimum, and Quantities to Order

The foregoing discussion has been mainly concerned with a description of the form of the balance of stores record and the method of making entries thereon. The value of this record as a means of inventory control has been indicated by this discussion. In order that this control may be of greatest value, it is necessary that it be as nearly automatic as possible. To accomplish this, it is necessary that certain limits be established which will serve to call the attention of those working on the stores record when orders should be issued for additional production and should inform them as to the amount for which these orders should be issued. This is accomplished by establishing maximum, minimum, and quantities to order.

Maximum and minimum limits should be established on each item of goods carried in stock. The maximum states the amount above which the inventory should not be permitted to go except by special permission of an executive officer. The minimum states the amount to which the stock of an item can be depleted before placing a production order to replenish it. When sales orders reduce the stock to the minimum, a production order should be issued for the amount decided upon as the "quantity to order."

The following factors should be considered by the production department in the establishing of maximum and minimum and quantities to order:

1. Production period.
2. Probable sales.
3. Margin of safety.
4. Economical run.

The production period is the time required from the placing of an order on the factory for production until the finished goods are delivered to the store-house. Obviously this period can not be established with exactness and will vary according to the quantity ordered, since it will take longer to produce ten thousand items than to produce one thousand items. Sufficient data can be collected, however, to estimate the approximate length of this period for different quantities of production. In the absence of better statistics, it may be necessary to use as the basis of computation the average production period as shown by the records of past production. As the planning work proceeds, it will be possible to obtain data which will serve to correct errors which may have been made in the original calculations.

The expected sales are stated in the estimate of sales prepared by the sales department. From this estimate it is easy to compute the expected sales for the production period. To illustrate: If the production period is thirty days and the quarterly sales estimate on Item Y is 600 units, the probable sales for the production period are 200.

If the probable sales and the production period could both be forecast with exactness, it would be satisfactory to establish a minimum just equal to the probable sales of the production period and to issue an order for the same amount as the minimum when the minimum is reached. To illustrate: the production period is thirty days and the probable sales for this period are 200. When the balance on hand reaches 200, the factory will be directed to produce 200 more. The factory will produce these and deliver them to stock in thirty days just as the last of the goods on hand are sold. Experience has shown that neither probable sales nor the length of the production period can be determined with exactness. Estimated sales may be oversold; strikes, breakdowns, and delays in deliveries of raw material may interfere with the normal course of production. It becomes necessary, therefore, to have a quantity of finished goods on hand in excess of the probable sales for the production period at the time the production order is issued. This excess may be termed the "margin of safety." This margin is usually estimated at from ten to twenty-five per cent of the probable sales for the production period. Its amount will vary in different businesses and may well vary with reference to different items in the same business.

If a business produces two or more commodities, or two or more sizes of the same commodity, it is usually possible to use the same machines to manufacture the different commodities or the different sizes. When the commodity or size of commodity, on which a machine is working is changed, it is frequently necessary to "adjust" the machine. In making this adjustment, considerable time with the consequent cost may be required. This cost must be added to the cost of the articles manufactured. If the machine is used to manufacture only a few pieces at a time and the cost of adjusting the machine is added to the cost of the work on these pieces, it may make the unit cost of the work unduly high. For instance, the X Machine may be used in manufacturing Commodity Y. It costs $5.00 to change the X Machine after it has been used on Commodity Z and put it in a condition to work on Commodity Y. One hundred pieces of Commodity Y are being manufactured and the operation performed on these pieces by X Machine costs $4.00, or four cents a piece. But when the $5.00 for adjusting the machine is added, the total cost is $9.00, or nine cents a piece. If, instead of 100 pieces, 1,000 pieces are manufactured at one time, and it is assumed that the cost per piece of operating the machine is the same as for the one hundred, the total cost of machine operation plus adjusting charge will be $40.00 plus $5.00, or $45.00. This makes the total cost per piece four and one-half cents. It can be seen, therefore, that the more pieces "run through" the machine at one time, the less per piece will be the cost of adjusting the machine. In planning production in a business where machines must be adjusted each time a new order goes through, it is necessary to have each order for a sufficient amount that the cost of adjusting the machines will not make the unit cost too high. The minimum amount which can be produced at a reasonable cost is termed the "economical run." In determining upon the quantity to order it is necessary to give careful consideration to see that it constitutes an "economical run."

As previously explained, the "probable sales" for the production period are the quantity expected to be sold during that period. The margin of safety is the amount which it is thought necessary to carry in addition to insure against contingencies. Therefore, the quantity to which stocks can be depleted before a production order is started is the sum of the probable sales for the production period and the margin of safety. This is the "minimum." When the stock of any item is reduced to this quantity, a production order is issued for the "quantity to order." The product specified on the production order passes through the production process and arrives at the storeroom, ideally, when stocks have been reduced to the *margin of safety.*

Quantities to order must be established under two sets of conditions. These conditions and the procedure in each case are as follows:

1. Where the probable sales for the production period plus the margin of safety is less than the amount

of the economical run, the latter amount becomes the quantity to order. To illustrate: The production period for Commodity H is thirty days and the probable sales for this period is 200. The margin of safety is twenty-five per cent of the probable sales, or 50. The probable sales plus the margin of safety is 250. It has been found, however, that to produce less than 500 pieces at a time causes an excessive piece cost. The economical run, therefore, is 500, and this becomes the quantity to order. When the minimum of 250 is reached, a production order will be issued for 500.

2. Where the amount of the probable sales for the production period plus the margin of safety is equal to or greater than the amount of the economical run, the former amount becomes the quantity to order. Under the conditions stated in the preceding paragraph if the economical run were 200 instead of 500, then the quantity to order would be 250.

The maximum is the sum of the minimum and the quantity to order. It is the danger mark which must not be exceeded.

Enforcement of Minimum and Quantities to Order

As indicated by the preceding discussion, there is a separate balance of stores card or sheet kept for each item of goods carried in stock. The maximum, minimum, and quantities to order are written on the face of the card as shown in Illustrations Nos. 110 and 111. Each time the balance of stores clerk posts an entry to the balance of stores record, he extends the balance and compares it with the minimum. Whenever the balance falls to the minimum, the clerk makes out a slip showing the name of the item and the quantity to order. He passes this slip to the section responsible for initiating production orders, and it prepares an order directing the factory to produce the "quantity to order."

Balance of Stores for Raw Materials

The foregoing discussion has concerned itself only with the balance of stores on finished stock. The same problem of inventory control exists in the case of raw materials and supplies. A discussion of the balance of stores in this connection will appear in the following chapter where it becomes pertinent by reason of the withdrawal of materials from stock and their placing into process.

QUESTIONS FOR CLASS DISCUSSION

1

The president of the Consolidated Products Company says that a production department is not necessary. From years of experience in the business he can tell how much to produce to meet the customers' demands. Is this particular president actually carrying out the functions of a production department without knowing it? What relation, if any, is there between the methods of the president in estimating the amount to be produced and the methods of the head of a production department?

2

The Landover Truck Company has had one plant located in Detroit. It is now expanding and requires an additional plant in Pittsburg. What changes in the organization of the production department probably will be necessary because of the addition of this plant?

3

The production manager of the National Motors Company has followed the practice of actively directing all the manufacturing operations of the company. Its operations have so increased that he finds it is now impossible for him to supervise all of the operations of the factory. What plan of organization for the factory would you suggest to him?

4

The sales department estimates the sales for the current year to be 12,000 pieces and the production department has agreed that they can produce this amount. What further problem has the production department in planning the production for the year?

5

The National Motors Company manufactures one grade of cars. It is estimated that its sales for the year 1920 will be 20,000 cars. The president of the company suggests that the factory operations be speeded up in order that these 20,000 cars be manufactured during the first four months of the year after which the factory may be closed down for the remainder of the year. Do you think this a satisfactory procedure?

6

Explain and illustrate the need for inventory records in the control of production.

7

Explain how the balance of stores records may be of value to the sales department in estimating sales.

8

The Bowen Manufacturing Company receives an order from the Blackwell Company for 2,000 pieces of Commodity A, 4,000 pieces of Commodity B, and 5,000 pieces of Commodity C. There are sufficient pieces of Commodities A and B on hand to fill the order, but there are only 2,000 pieces of Commodity C in stock. Because of the extra shipping charges involved in shipping separate small lots, it is not desirable to ship Commodity A and Commodity B at the time the order is received and Commodity C later. Therefore, it is decided to wait until additional pieces of Commodity C are received from the factory for making shipment. One week later 6,000 pieces of Commodity C are received from the factory, and it is decided to make shipment of the entire order. Upon investigation, however, it is found that shipments of A and B have been made to other customers and that there are now not sufficient pieces of Commodity A and B on hand to fill the order of the Blackwell Company. This company has frequent experiences similar to this one. Explain a means by which such conditions may be avoided.

9

Explain and illustrate the use of the "Applied" column, shown on the balance of stores record in Illustration No. 110.

10

Explain and illustrate the value of showing the *shortage* on the balance of stores record.

11

Explain and illustrate the purpose of establishing "minimum" and "quantities to order."

12

Explain and illustrate the purpose of the "margin of safety."

13

What is meant by an "economical run"? How is it determined?

14

The estimated yearly sales of Commodity O are 12,000 pieces. The average production period for this commodity is thirty days. The least quantity which can be manufactured economically is 500. It is thought necessary to establish a margin of safety of 25% of the probable sales. Explain what would be (a) probable sales; (b) minimum; (c) quantity to order, for this commodity.

15

Explain how the minimum and quantities to order, after they have been established, are enforced.

LABORATORY MATERIAL

Exercise No. 167

The Lewis Manufacturing Company does not maintain a production department. The president of the company supervises the operations of the factory and determines the articles which are to be manufactured and the quantities in which they are to be produced. During recent months the company has incurred considerable difficulty in filling customers' orders. It is found that they do not have in stock some items called for by customers while they have large inventories of other items. It is also thought that some of their costs are too high. Some of the directors of the company suggest that it is desirable to have a production department. The president does not understand clearly the purpose of such a department. At their request you are employed to explain the services which such a department may render.

Instructions: Write a letter addressed to the president, explaining the services which such a department may render.

Exercise No. 168

The Super-Steel Corporation decides to install balance of stores records as of May 1, 1920. The physical inventory, taken as of that date, shows that 4,000 items of Commodity X are on hand. The records show that on April 15th there were 1,500 pieces ordered from the factory on Production Order 35. The estimated yearly sales for Commodity X are 18,000 pieces. The average production period for the company is thirty days. The margin of safety is estimated at 20% of the probable sales. An economical run for Commodity X is 800 pieces. The following transactions with reference to Commodity X take place during the month of May:

May 5.	Sales Order D1000 Received	2,000
7.	Sales Order D1000 Shipped	
11.	Sales Order R192 Received	250
12.	Sales Order R192 Shipped	
13.	Production Order Z10 Issued for .	Quantity to Order
15.	Finished Goods Called for by Production Order Z5, Received Into Stock .	1,500
15.	Sales Order E989 Received	750
18.	Sales Order D1200 Received	500
20.	Sales Order E989 Shipped	

(*Concluded on page 884*)

	21. Sales Order D1200 Shipped	
	25. Sales Order G727 Received	1,900

Instructions: 1. Draw up a form like Illustration No. 110. 2. Record the above transactions on this form.

Exercise No. 169

The Atlas Turbine Company estimates its yearly sales of Commodity Y to be 300,000 pieces. The average production period for the company is fifteen days. The margin of safety is estimated to be 10% of probable sales. An economical run for Commodity Y is 2,000 pieces. The records show that there are no unfilled sales orders at the beginning of March. A production order No. X26 for 13,750 pieces was issued on February 19. On March 1 the inventory on hand is 15,000 pieces. During March the following transactions take place:

March	1. Inventory on Hand	15,000
	1. Sales Order A771 Received . . .	1,900
	1. Production Order X27 Issued . . .	13,750
	5. Sales Order A771 Shipped	
	6. Goods called for by Production Order X27 Received	13,750
	10. Sales Order F934 Received	7,500
	11. Sales Order R2100 Received . . .	4,250
	13. Sales Order F934 Shipped	
	15. Sales Order R2100 Shipped . . .	
	16. Sales Order A772 Received	5,000
	16. Goods called for by Production Order X28 Issued	13,750
	17. Goods called for by Production Order X27 Received	
	20. Sales Order A772 Shipped	
	24. Sales Order R2200 Received . . .	390
	25. Sales Order G873 Received	500
	Sales Order F944 Received	1,200
	27. Sales Order R2200 Shipped	
	Sales Order G873 Shipped	
	28. Sales Order A773 Received	1,750
	29. Sales Order F944 Shipped	
	29. Sales Order S100 Received	2,250
	31. Sales Order A773 Shipped	

Instructions: 1. Draw up a form like Illustration No. 110. 2. Record the above transactions on this form.

CHAPTER LXI

RECORDS AND REPORTS FOR THE PRODUCTION DEPARTMENT—Continued

The Planning of Production

In every manufacturing business there must be some one who is responsible for the initiation of production orders and the control of the orders issued while they are in the process of manufacture. In some cases this function is performed by the factory superintendent or works manager. If this control is exercised in a systematic manner, it is necessary that written orders and reports be employed, and this involves the performance of considerable clerical detail. It is customary for the works manager to delegate the execution of this "paper work" to an assistant. In a large factory this work is of sufficient importance to necessitate the organization of a department, usually termed the planning department, which has control of production planning and procedure. The planning department is divided into sections, and each section is in charge of one phase of production control. There is ordinarily a factory schedule section which is responsible for the initiation of production orders, and the receipt of production reports from the factory. The head of the factory schedule section is frequently termed the production clerk. The work of the production clerk is closely related to the work of the accounting department.

The Notice of Minimum

When the balance available of any item of goods, as shown by the balance of stores records, reaches the minimum, the balance of stores clerk issues a notice to the production clerk. This notice should contain the information shown in Illustration No. 112.

Production Order

The production clerk, upon the receipt of the notice of minimum, will issue a production order. A simple form of production order is shown in Illustration No. 113.

There will be at least four copies of the production order prepared: one copy will go to the foreman of the first department who is to perform work on the order; one copy will be sent to the cost accounting section of the accounting department, one copy will be sent to the balance of stores section; and the fourth copy will

(*Continued on page 887*)

NOTICE OF MINIMUM

Date.................................... Order No.......................

ENTER ORDER FOR

Quantity	Size	Description

....
Balance of Stores Section.

Illustration No. 112—Notice of Minimum

PRODUCTION ORDER

Factory Order No....................

To Foreman.. Dept.................................... Date..................

Date Wanted	Bill of Material or Mat. Req. No.	Description	Quantity

Completed.......................................Signed..Supt.

....Foreman

Illustration No. 113—Production Order

be retained by the production clerk in his files. Other copies may be made if there are others who desire information with reference to orders issued.

Bill of Materials

The production clerk, or some section of the planning department, will prepare a bill of materials for each production order issued which will show the number of pieces of each kind of raw materials required to manufacture the finished goods called for by the production order. One copy of the bill of materials will be sent to the raw materials balance of stores clerk who will enter the items called for by it in the "Applied" or "Reserve" column on the balance of stores record. This column serves the same purpose as the "Applied" column on the balance of stores for finished goods. It sets aside or holds in reserve the materials required for the production order for which the bill of materials is prepared so that they will not be used on some other production order before they are required for this one. The bill of materials shows the total materials required by all departments in the manufacture of the goods called for by the production order. Since the production order passes through one department at a time, it may not reach some departments until several days after it is issued, and these departments may not take the raw materials needed for the order from the storeroom until the production order reaches them. This explains why all the materials called for by the bill of materials are not removed from the storeroom as soon as the production order is issued which necessitates that they be *reserved* on the balance of stores record.

Balance of Stores for Raw Materials

As indicated by the preceding paragraph, balance of stores is maintained for raw materials in the same form as it is maintained for finished goods. Raw materials purchased are entered on these records from the invoices or from the reports of materials received. The goods issued to the factory are entered from the materials requisitions which are received in the manner described under the next topic.

Maximum, minimum, and quantities to order are established in the same manner as for finished goods, as explained in the preceding chapter. The only difference in the procedure of operating the balance of stores records for raw materials and the balance of stores records for finished goods is that when the minimum is reached on the former record, a purchase requisition is prepared and sent to

(*Concluded on page 888*)

the purchasing agent, while in the latter case a requisition for production in the form of a "notice of minimum" is issued to the production clerk. The reason for this difference is easily seen, since additional finished goods are obtained from the factory, while additional raw materials are obtained by purchases from outside vendors.

Materials Requisition

When the foreman of the department which is to initiate the manufacturing process receives the production order from the production clerk, he will need to secure from the storeroom the raw materials which are necessary for the production of the finished goods called for by the production order. He obtains these by means of a materials requisition on the storeroom. The essential information which should be contained in the materials requisition is shown in Illustration No. 114.

FARRELL MANUFACTURING CO.
Pittsburgh, Pa.

Requisition for Material
Which is in Stock.

Date..............................

Quantity	Size or Number	Description	Weight		Price	Amount	
				STOP HERE			

Charge.. For..

Filled From.. Filled By..

Ent. Stock Book By..................Ext'd. By.................. Dist. By..

Signed..

Illustration No. 114—Materials Requisition

The materials requisition is prepared in duplicate. The original is sent to the raw materials storeroom and the duplicate is retained by the foreman. The foreman will fill in the body of the materials requisition to show the date, quantity desired, the size or number, a description of the material desired, and, in some cases, its weight. At the bottom of the requisition he will indicate the production order which is to be charged for the material.

When the materials requisition is received by the storekeeper, he will deliver the materials called for and fill in the bottom of the requisition to show the storeroom from which the materials are issued, and the name of the issuing storekeeper. After the requisition is filled, it will be forwarded to the balance of stores clerk who will make the proper entries on the balance of stores records.

When there is a highly centralized planning department, the materials requisition may be filled out by this department rather than by the foreman of the department. The procedure of handling the requisition is the same in both cases.

Labor Tickets

When the foreman of the department receives the materials from the storeroom, he commences manufacturing operations on them. In the performance of these operations, it is necessary that he employ the services of workmen. For accounting purposes it is necessary that a record be kept to show the cost of these services. This is usually accomplished by having a time ticket prepared for each workman showing the amount of work he has performed on each production order.

Time tickets are made in various forms, depending on the information which it is desired to obtain from them and the method of assembling this information. A very simple form of time ticket is indicated by Illustration No. 115.

The modern tendency is to use tabulating machines as a means of assembling labor costs. When these machines are used, a tabulating card, such as that shown in Illustration No. 116, is employed for the recording of the employes' services. The method of using such machines will be explained in Chapters LXIX and LXX.

Whatever form of time ticket may be employed, it is usually prepared in duplicate; one copy is sent to the pay roll section of the accounting department, and the other is given to the workman that he may be able to check his earnings with the payment which he receives at the end of the pay roll period.

Assembling of Time Tickets

The time tickets must be assembled to show three things: (1) the amount due to each workman which is used as a basis of making

TIME TICKET

Name.. Date..............................

Department	Classification No.	Production Order	Description	Quantity	Time	Rate	Amount	

Illustration No. 115—Time Ticket

up the pay roll; (2) the total amount due for labor which is used as the basis for entries in the voucher register—this amount usually can be obtained by totalling the pay roll which shows the amount due the individual workmen; (3) the amount to be charged to each production order. The pay roll department may be responsible for the assembling of all this information, or some of it may be assembled by the cost accounting section or the tabulating section of the accounting department.

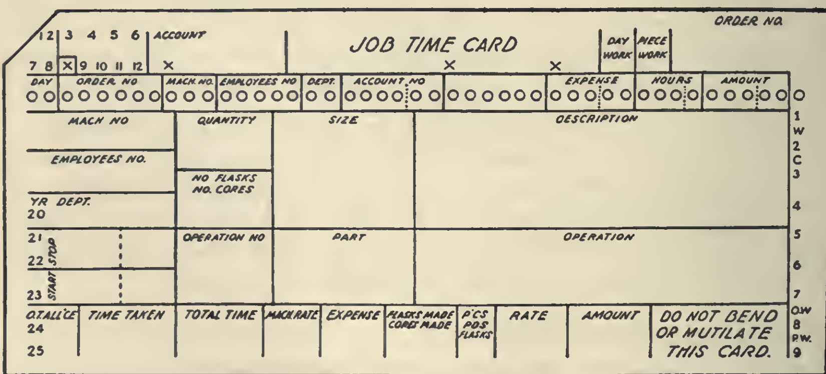

Illustration No. 117—Job Time Card

Finished Goods Report

When the goods called for by the production order are completed, they are delivered to the storeroom. Before placing the goods in stock, they are subjected to the scrutiny of an inspector to determine if they are in proper condition. The inspector or the stores department prepares a report showing the number of pieces delivered into stock. One copy of this report is sent to the production clerk, another copy is sent to the cost accounting section, and a third copy is sent to the balance of stores clerk. This report notifies the cost accounting section that the production order has been completed, and this section then proceeds to determine the cost of the order in the manner described in the following paragraphs.

Cost Accounting Records

When the cost accounting section receives a copy of the production order issued by the production clerk, an account is opened with the order in the *cost ledger*. This ledger is usually in looseleaf form; its pages are ruled to indicate the information desired

COST SHEET

Name of Article........................ Sheet No........................
Date Finished........................ Catal No........................
Number Made........................ Draw. No........................
Unit Factory Cost........................ Prod. Order No........................

DATE	MATERIAL					LABOR					INDIRECT	
	Description	Req. No.	Quantity	Rate	Amount	Operation	Check No.	Hours	Rate	Amount	%	Amt.
TOTALS........												

Illustration No. 117—Cost Ledger

with reference to the cost of each order. A simple form of cost ledger is shown in Illustration No. 117.

It will be noticed that the cost sheet calls for a record of the cost of: (a) the materials; (b) the labor; and (c) the manufacturing expenses on each production order.

The materials requisitions received by the balance of stores clerk from the foreman show the order on which the materials are to be used. After these requisitions are filled and the proper entry made on the balance of stores records, they may be forwarded to the cost accounting section and entries made from these on the cost sheet. In some cases the balance of stores section makes a summary of the materials requisitions and sends to the cost accounting section a report at the end of each week or month, showing the total materials of each kind issued on each production order. In other cases a tabulating card is prepared, showing the materials of each kind issued on each order, and these are assembled by the use of tabulating machines.

The time tickets show the production orders on which the labor which they represent has been expended. After these tickets have been entered on the pay roll by the pay roll dpartment, they may be forwarded to the cost accounting section and used as the basis for entries to the cost ledger; or the pay roll department may make a summary of these tickets showing the amount of wages which should be charged to each production order and send a report to the cost accounting section from which it posts to the cost sheets. In some cases the time tickets are made in the form of tabulating cards and are assembled by means of tabulating machines.

Manufacturing Expense

The materials and labor used on each production order can be identified with the order by means of the materials requisitions and the time cards, and entries can be made on the cost sheet either directly from these or from a summary or tabulation of them. But in addition to the material and labor costs, there are certain expenses incurred in the operation of the factory which must be charged as a part of the cost of the goods produced. These expenses are termed *manufacturing expense*. The general nature of these expenses has been discussed in previous chapters. Because of their nature they can not be charged directly to a production order in the same manner as material and labor. For instance, if $200.00 is paid for the lighting of all the departments of the factory for one month, all the orders passing through the factory during the month should pay some part of this cost, but no part of it can be directly connected with any specific order while it is in process of manufacture. Consequently after the order is completed, it is necessary to apportion to it on some equitable basis some part of the total cost of lighting the factory. So it is with the various items of manufacturing expense, such as heat, insurance, taxes, depreciation, and supplies; they are not *requisitioned* for a particular order as are materials, neither is a certain part of them chargeable to an order on a time ticket as is labor. This necessitates the development of some method by which these expenses can be apportioned to the various orders so that each order will bear its share of their cost.

Apportionment of Manufacturing Expenses

Accountants and industrial engineers have given much thought to the problem of apportioning manufacturing expenses. Many methods of apportioning these have been developed. It is impossible in this discussion to explain all of these methods; consequently it is necessary to select for treatment those which are in most prevalent practice and which best illustrate the general principles involved. The methods which it is thought will be of the most value for the student to understand are: (a) the labor percentage rate; (b) the labor hour rate; and (c) the production center rate.

Labor Percentage Rate

Probably the simplest method of apportioning manufacturing expenses is to obtain the ratio of the total manufacturing expenses for a certain period of time to the total cost of labor for the same period of time and then apply this ratio to the cost of labor for each order. To illustrate: the total manufacturing expenses for six months are $20,000.00. The total cost of labor employed on all orders during the same period is $40,000.00. The manufacturing expenses for the period, therefore, are fifty per cent of the cost of labor. The cost of the labor used on production order No. 1200, calling for the manufacture of 400 pieces of Commodity A is $600.00. Consequently fifty per cent of $600.00, or $300.00, will be added to the cost of production order No. 1200 for manufacturing expense. If the cost of the materials used on this order is $500.00, the total cost will be: Labor, $600.00; Materials, $500.00; and Manufacturing Expense, $300.00, or a total of $1,400.00.

This method of apportioning expenses is satisfactory under certain circumstances. If only one product is manufactured, it is satisfactory in most cases since it is fair to assume that the ratio between labor and manufacturing expenses will be approximately the same on all orders. If two or more products are manufactured, the apportionment of manufacturing expenses on the basis of labor cost will be satisfactory if workmen employed on all commodities receive approximately the same wages and use similar equipment. In many cases, however, this method leads to inaccurate results. To illustrate: Production Order X and Production Order Y go through the factory at the same time. Very similar operations are performed on each, but the workmen employed on Order X receive a large wage because of their skill and long term of service, while the workmen employed on Order Y receive twenty-five per cent less in wages than those employed on Order X. In this case Order X will be charged twenty-five per cent more for manufacturing expenses than Order Y; yet the cheaper workmen require as much light, heat, and power as the higher priced workmen. In fact, they may require more, for they may work slower and take longer to complete the order. The cheaper workmen also cause the machines to depreciate just as much as the better workman, and because of a lack of skill they are more apt to make repairs necessary. This illustration shows that, unless the wages paid to workmen are fairly uniform, this method of apportioning expenses may lead to inaccurate results. The labor percentage method was the first method developed and is yet the one most widely used.

The Labor Hour Rate

Many of the expenses of manufacturing vary in proportion to time. Consequently a method of apportioning expenses has been developed which provides for charging each order for expenses according to the time occupied on the order. Under this method the total manufacturing expenses are divided by the total hours which all workmen are employed to obtain an hourly rate. Then the total hours of labor employed on any specific order are multiplied by the hourly rate to obtain the manufacturing expenses to be charged to the order. To illustrate: The total number of hours of labor for all workmen for a given period is 12,000, and the total manufacturing expenses for the same period is $2,400.00; therefore the cost of manufacturing expenses per labor hour is twenty cents. There has been expended on Production Order No. 800 two hundred hours of labor. The manufacturing expenses to be added to this order are $40.00.

This method of apportioning manufacturing expenses may be satisfactory if the equipment used throughout the factory is fairly uniform. If not, it may lead to unsatisfactory results. To illustrate: A factory produces two commodities, A and B. On Commodity A there is performed a large amount of hand work, and consequently a large number of labor hours is required for its completion. Commodity B is manufactured almost entirely by machines, and consequently it is produced with less labor hours than Commodity B. If manufacturing expenses are apportioned on the basis of labor hours, Commodity A will be charged a larger portion of the expenses than is Commodity B. Yet Commodity B requires the use of large machines with the consequent cost of power, repairs, etc., while Commodity A, being largely the result of hand work, requires the incurrence of very little expense of this nature. Commodity B therefore should be charged more for expense than A, but this method of apportioning the expense produces the opposite result.

Production Center Rate

The foregoing discussion explains and illustrates how the apportioning of manufacturing expenses on the basis of labor cost or labor hours may lead to inaccurate results because of a difference in the grade of labor or the grade of equipment used in the production of different commodities or different orders.

To eliminate these difficulties, each department of the factory may be divided into "production centers." Each production center is a group of activities of the same kind or nature. It may be one machine, a group of machines of the same kind, a single hand workmen, or a group of hand workmen doing the same thing. The expenses of the department are apportioned to the production centers and the total expenses incurred in operating each production center for a certain period of time is determined. This amount is divided by the number of hours during which operations are carried on at the center. This gives the hourly expense charge for operating this center. A record is kept of the hours each order is operated on at each production center, and the order is charged at the hourly expense cost for the manufacturing expenses incurred at the center.

To illustrate: The monthly expense cost of production center X is $400.00. The production center operates 200 hours during the month, so that the hourly expense charge is $2.00. Production Order No. 236 is operated on at production center X for five hours; consequently this order will be charged $10.00 for manufacturing expense incurred at this production center.

The apportionment of manufacturing expenses by means of production centers usually gives accurate results and is the most scientific method of apportionment for businesses which obtain costs by production orders. The only disadvantage of this method is the difficulty of determining the amount to be charged to each production center and the cost of keeping a record to show the number of hours each order is worked on at each production center. Because of these reasons, business men have been slow to adopt this method.

Departmental Classification of Manufacturing Expenses

In most cases where two or more products are manufactured, the total manufacturing expenses of the factory can not be apportioned accurately to all commodities on a uniform ratio. There will be some expenses which will be incurred for the benefit of some commodities only. If the factory has two or more departments, there may be some commodities which will not go through all departments, and it is manifestly unfair to charge these commodities with any of the expenses of the departments from which they do not benefit. To take a simple illustration: A lumber company may sell some of its lumber as soon as it comes from the mill, while it is green. The remainder it may send to the kiln to be dried. Some of this may be sold as soon as dried, while some of it may be planed before it is sold. It is obviously unfair to charge any part of the expense of the kiln or planing mill to the green lumber, or any part of the expense of the planing mill to the lumber sold before it is planed.

Furthermore, if a factory has two or more departments, it will usually be found that the ratio between the manufacturing expense and labor, material, or any other factor which is used as the basis for apportionment, will vary from department to department. It is usually found advisable, therefore, to apportion the manufacturing expenses to the departments, and to distribute the expenses of each department to the orders passing through that department.

Some expenses can be charged directly to a department. For instance, depreciation and repairs on machinery can be charged directly to the expenses of the department in which the machinery is used. Other expenses must be apportioned to the departments on some proper basis. For instance, the insurance and taxes on machinery may be apportioned to departments on the basis of the value of the equipment in the departments. The cost of the maintenance of the building may be apportioned on the basis of floor space. The cost of heat may be apportioned on the basis of floor space or in some cases on the cubical space in the departments. After all the expenses are charged to the departments, then each order going through the department will be charged with a part of the expenses of the department. Any of the methods discussed may be used to determine the amount to charge to specific orders.

The Cost Entries

The method of entering the cost of materials and the cost of labor on the cost sheet has been explained in preceding paragraphs. After the entries are made for these costs, the manufacturing expense chargeable to the order for which the cost sheet is kept will be entered. The amount of this expense will be determined by the method of apportionment employed by the business. If the percentage of labor rate is employed, the proper percentage will be applied to the cost of labor as shown by the cost sheet and the result recorded in the expense column. If the labor hour rate is used, the hourly rate will be multiplied by the number of hours shown on the cost sheet to obtain the amount of the expense. If the production center rate has been adopted, the hourly rate for each production center will be multiplied by the number of hours the order was operated on at this center.

After the entries for manufacturing expense, labor and materials are made on the cost sheet, it is totalled and ruled to show the cost of producing the goods called for by the order. The total shown on the cost sheet is entered in the finished goods journal. This journal will be ruled to show: (1) Date; (2) Production Order Number; (3) Folio; (4) Amount column for each commodity or group of commodities manufactured. At the end of each cost period the totals of each amount column in the finished goods journal will be posted to the debit of the Finished Goods account which is maintained with the commodity shown in the column and credited to the Manufacturing account or Work in Process account maintained with the same commodity.

The operation of the general ledger accounts with materials, labor, manufacturing expense and finished goods has been explained and illustrated in Chapter XLIV, but for the purpose of review the following skeleton journal entries are given:

1. When materials are purchased:

Materials	....	
Accounts Payable		....

Entries will be made in the voucher register for each invoice and the totals posted at the end of the cost period.

2. When materials are transferred from the storeroom to the factory:

Materials in Process . . . .
  Materials . . . .

Entries will be made in the *requisition journal* from the materials requisitions on which materials are issued from the storeroom.

3. When the wages due factory employes, as shown by the time tickets are recorded:

Labor . . . .
  Accounts Payable . . . .

Entries will be made in the voucher register from the pay roll prepared by the pay roll section of the accounting department and the totals posted at the end of the cost period.

4. When manufacturing expenses are incurred:

Manufacturing Expenses (Separate account for each class) ....
  Accounts Payable . . . .

Entries will be made in the voucher register from the invoices received for these expenses. There will be some expenses such as charges for depreciation, which will be entered through the general journal.

5. When the ledger accounts are closed, at the end of the cost period:

Manufacturing Account or Work in Process Account ....
  Materials in Process . . . .
  Labor . . . .
  Manufacturing Expense . . ..

A separate Manufacturing account or Work in Process account may be maintained for each commodity or class of goods manufactured. The foregoing entry will be made through the journal or by means of a journal voucher.

6. When finished goods are transferred from the factory to the finished goods storeroom:

Finished Goods . . . .
  Manufacturing or Work in Process . . . .

This entry will be made from the completed cost sheets through the furnished goods journal in the manner explained in the preceding paragraphs.

7. When finished goods are sold two entries are made:

(a) Cost of Sales	....	
Finished Goods		....
(b) Accounts Receivable	....	
Sales		....

These entries are usually made from the invoices through the sales record.

Methods of Cost Finding

There are two methods of cost finding in general practice: (a) the production order method, and (b) the process method. When the production order method is employed, a separate account is opened in the cost ledger for each production order issued. The materials, labor, and manufacturing expense applicable to the order are shown on the cost sheet so that the total cost of the goods called for on the order can be ascertained from the cost ledger account when the production order is completed. This method has been assumed in the preceding discussion in this chapter because the control of production and production costs can be more easily explained and illustrated when costs are obtained on each production order.

In some businesses the production order method can not be used. This is usually because the nature of the articles manufactured is such that it is impossible to keep a certain quantity, such as is represented by a production order, segregated from the other articles as it passes through the factory. For instance, a company manufacturing a liquid, such as ink, has hundreds of gallons passing through the various processes at one time. It is impossible to indentify any specific quantity, for example, one hundred gallons, and to follow it through the various processes in the manner that a hundred lathes might be followed through a machine shop. The same situation exists in the manufacture of paints, soap, paper, canned goods, nails, and similar articles.

In such businesses it is necessary to use the process method of determining cost. Under this method a record is kept of the materials and labor cost of each process through which the raw material must pass to become the finished product. The manufacturing expense is distributed according to the method of apportionment in use. The total cost of materials and labor for each process plus the manufacturing expense applicable to that process will give the cost of passing a certain quantity through this process. The cost per unit (pound, gallon, dozen, etc.) for this process is determined by dividing the total cost for the process by the number of units produced. In this way the unit cost for each process is obtained, and by adding these for the entire manufacturing process the total unit cost is determined.

In some cases the unit cost by processes is not obtained, but, instead, the total cost for all processes is determined, and this is divided by the total units completed to obtain the total unit cost. To illustrate the determination of process costs, it may be assumed that there is to be produced a certain quantity of paper which in the course of manufacture passes through four processes. The cost of raw materials and labor in the first process is \$200.00; the cost of materials and labor in the second, \$120.00; the cost of labor only in the third, \$80.00; and the cost of materials and labor in the fourth, \$160.00. The manufacturing expense chargeable to the four processes is: first, \$40.00; second, \$70.00; third, \$30.00; and fourth, \$60.00. The total cost for the four processes is \$760.00. If 14,200 pounds of paper is obtained from the results of the various processes, the cost per pound is five cents.

Summary

In the present and the preceding chapters the general principles involved in the control and determination of costs have been explained and illustrated. For the sake of brevity it has been necessary to assume in some cases a definite procedure where in practice there are several methods which might be followed. The student will understand that it is not intended that the procedures or methods explained be regarded as arbitrary ones. They are intended to be suggestive only. It is the opinion of the author that the subject of cost accounting is so technical and involves so much detail that the most that can be given the student in a general accounting course is the background which will enable him to master any particular system which he may need to use or operate. If he understands the general purposes and problems of cost finding and the customary methods of attaining these purposes and solving these problems, he should be able to master the technique of any specific system within a reasonable time. To give such an understanding is the purpose of the preceding discussion. Those who are interested in a further treatment of cost accounting are referred to the standard manuals on cost finding.

QUESTIONS FOR CLASS DISCUSSION

1

A. W. Torbet is production clerk for the Frazer Manufacturing Company. He is responsible for the initiation of all production orders. How will he know when an order should be issued?

2

Torbet prepares the production orders in quadruplicate and sends one copy to the cost accounting section of the accounting department. Why?

3

The Frazer Manufacturing Company finds in some cases, after production orders are issued and work commenced by the factory departments, that it must be stopped because the raw materials needed are not available in the storeroom. How may this condition be avoided?

4

How can the cost accounting section identify the materials and labor used on an order with that order?

5

The Frazer Manufacturing Company manufactures standard articles, and consequently produces these in advance of customers' orders and places them in stock. The Jackson Manufacturing Company manufactures to order, each order being made according to the specifications of the customer. In what way would the problem of production and inventory control in the two companies be different?

6

State the information which it may be desired to obtain from the labor tickets and explain how this information is secured.

7

How does the cost accounting section know when the goods called for by a production order have been completed and delivered to the storeroom? What does this section do when it knows these have been completed?

8

State the information which is contained on the "cost sheet" and explain how this information is obtained.

9

Explain the operation of each of the following methods of apportioning manufacturing expenses to orders: (a) labor percentage rate; (b) labor hour rate; (c) production center rate.

10

Explain under what circumstances you would advise the use of each of these methods.

11

Explain the disadvantages of each of these methods.

12

What advantages may be obtained from a departmental classification of expenses?

13

Explain how the following expenses may be distributed to departments: (a) heat; (b) light; (c) insurance on machinery; (d) insurance and taxes on the factory building.

14

The Frazer Manufacturing Company purchases steel castings which are to be used in the manufacture of one hundred machines. Explain the entries which will be made in the accounts from the time the castings are purchased until the finished machines are sold.

15

Explain and illustrate the difference between the production order method and the process method of determining costs.

LABORATORY MATERIAL

Exercise No. 170

The Kirker Manufacturing Company maintains a factory ledger in which is kept accounts which show the cost of factory operations. This ledger is controlled by a Factory Ledger account in the general ledger. The following is the Trial Balance of the factory ledger of the company on January 31st, after one month's operations and before all the entries have been made:

General Ledger Account . .		$27,145.50
Materials	$23,000.00	
Work in Process	1,450.00	
Power Expenses	740.00	
Building Expenses	880.00	
General Factory Expenses . .	90.50	
Dept. A, Carpenter Shop . .	410.00	
Dept. B, Machine Shop . . .	575.00	

Department A covers 6,000 square feet and uses 100 horse power.

Department B covers 10,000 square feet and uses 500 horse power.

The balance in the Materials account represents the purchases to date, and the Work in Progress balance represents the inventory July 1st, as follows: Order No. 1001, $400.00; Order No. 1002, $300.00; Order No. 1003, $750.00.

The timekeeper submits the pay rolls and these, when analyzed, are found to consist of the following:

General Superintendent	$150.00
Foreman and Clerk, Dept. A	120.00
Foreman and Clerk, Dept. B	135.00
Watchman	40.00
Engineer and Fireman	160.00
Dept. A Mechanics:	
On Order No. 1001, 2,000 hours	800.00
On Order No. 1002, 1,500 hours	450.00
On Order No. 1003, 2,000 hours	600.00
Dept. B Mechanics:	
On Order No. 1001, 1,500 hours	400.00
On Order No. 1002, 2,500 hours	600.00
On Order No. 1003, 1,000 hours	300.00

The storekeeper turns in requisitions for materials used, which are analyzed and found to be for the following:

Supplies, Dept. A	$ 50.00
Supplies, Dept. B	75.00
Order No. 1001	900.00
Order No. 1002	300.00
Order No. 1003	800.00
Repairs Dept. B	160.00

The storekeeper reports the completion of the orders and the receipt in the storeroom of: Order No. 1001, 3,000 pieces; Order No. 1002, 1,250 pieces.

The storekeeper also reports the shipment of goods which being priced and totalled are found to have cost $12,000.00. The company charges sixty per cent of the cost of labor for manufacturing expenses in Department A, and fifty cents per labor hour for manufacturing expense in Department B.

Instructions: 1. Make journal entries to give effect to the above. 2. Construct ledger accounts. 3. Take a Trial Balance.

Exercise No. 171

The Frazer Manufacturing Company produces one hundred different commodities. All of these commodities are manufactured in advance of customers' orders and are carried in stock. The factory is divided into ten departments. Some of the commodities manufactured pass through all the departments while others pass through only part of them. Machines of various sizes and types are used in the different departments. The wages paid to workmen vary widely in the different departments.

Instructions: Write a report addressed to George E. Frazer, President of the company, explaining a system of production control which you think is applicable to his company. In this report explain the method of:

1. Initiating production.
2. Recording costs of materials and labor.
3. Apportioning manufacturing expenses.
4. Entering of order costs on the general records.

You may assume any facts which you think necessary, but state your assumptions clearly.

Exercise No. 172

The McMahon Lumber Company classifies its operations under the following heads: Logging (wood), Transportation (to pond at sawmill), Sawmill, Kiln Drying.

The following is the Trial Balance of the factory ledger after all of the known expenses of operation have been charged, but before the reports of operating foremen have been received. The various inventory accounts represent the balances at the beginning of the month before the month's operations have been entered.

General Ledger		$42,880.50
Logs in Woods, 700,000 feet	$4,200.00	
Logs in Pond, 1,000,000 feet	7,000.00	
No. 1 Lumber, Green, 350,000 feet	5,250.00	
No. 2 Lumber, Green, 500,000 feet	5,000.00	
No. 1 Lumber, Dried, 200,000 feet	3,400.00	
Slabs, 300 cords	600.00	
Power Expenses	700.00	
General Operating Expense	1,200.00	
Logging Expense	6,200.00	
Transportation	1,625.00	
Sawing	7,205.50	
Dry Kiln Expense	500.00	
	$42,880.50	$42,880.50

Report from woods foreman:	
Logs Cut	1,550,000 feet
Report from transportation foreman:	
Logs Hauled to Sawmill Pond	1,350,000 feet
Report of sawmill superintendent:	
Logs Sawed	1,400,000 feet
Lumber Produced, No. 1 Grade	500,000 feet
Lumber Produced, No. 2 Grade	800,000 feet
Slabs Cut	175 cords
Dry kiln report:	
Lumber Dried During Month—	
No. 1 Grade	300,000 feet
Shipping clerk's report:	
No. 1 Green Lumber Shipped	250,000 feet
No. 2 Green Lumber Shipped	600,000 feet
No. 1 Dried	150,000 feet
Slabs Shipped	250 cords

Stumpage (standing trees before operations are begun) is to be credited at $1.50 per thousand for all logs cut. The Stumpage account is maintained on the general ledger.

Power is to be charged 60% to Sawmill and 40% to Kiln.

General Operating Expense is to be distributed half to logging and half to sawmill.

Manufacturing expenses are to be divided between No. 1 lumber and No. 2 lumber on the basis of the feet produced.

Slabs are worth $2.00 a cord.

Instructions: 1. Make the journal entries to put the above on the books and to close the accounts. 2. Construct the ledger accounts to show the above. 3. Take a Trial Balance.

Exercise No. 173

The Torr Manufacturing Company has its factory divided into three departments. In each department all the operations are sufficiently the same for the department to be regarded as a "production center," if desired. The records of the company show the following results for the year 1920·

	Dept. A	*Dept. B*	*Dept. C*
Materials Used	$20,000.00	$10,000.00	$10,000.00
Productive Wages Paid . . .	6,400.00	5,000.00	7,000.00
Productive Labor Hours . . .	16,000.00	10,000.00	20,000.00
Manufacturing Expenses . . .	8,000.00	5,000.00	5,600.00

The cost ledger shows the following results with reference to Production Order No. 250, which passed through the factory during the year:

	Dept. A	*Dept. B*	*Dept. C*
Material	$2.00	$4.00	$2.00
Labor Cost	3.20	3.00	2.10
Labor Hours	8	6	6

The factory operated 2,000 hours during the year.

Instructions: 1. Explain and illustrate three methods which may be employed in apportioning the manufacturing expenses to production orders.

2. Determine the cost of Production Order No. 250 when each of these three methods of apportioning expenses is used.

CHAPTER LXII

RECORDS AND REPORTS FOR THE PURCHASING DEPARTMENT

Relation of Purchase Procedure to Accounting

All mercantile and industrial firms must make frequent purchases of commodities. In a mercantile business, such as a department store, the goods which are to be sold are purchased in the finished or salable form. In a manufacturing firm ,the raw materials which are used in the production of the commodity or service sold must be purchased. Usually the cost of such materials constitutes a large part of the cost of the finished product.

What constitutes finished stock in a particular business depends upon the character of the product offered for sale to the customers of the business. The finished stock of the King Foundry Company becomes the raw material of the Jones Desk Manufacturing Company. The lumber, as it comes from the mill of a lumber company, may be finished stock if the lumber company offers the green lumber for sale to its customers; or the sawed lumber may be seasoned and planed and so made into finished lumber of the higher grades. Materials are either (a) raw materials; (b) goods in process; or (c) finished stock, depending upon the stage of their utility to the customers of the selling company. For census purposes materials may be classified as "raw materials" or "basic materials," but that classification does not hold in the reports of any particular company where the only test must be that finished stock is stock in the form demanded by customers.

The finished stock of a company may be produced in the factory of the company from raw materials; or it may be assembled and altered from parts in the alteration room of the company; or it may be purchased as finished stock. In any case, purchases must be made either of the finished material or of its components. The transactions arising from the purchases made usually constitute a considerable portion of the total transactions of the business. In order that these transactions may be easily and accurately recorded, it is necessary that the procedure followed and the forms used by the purchasing department be such that the information necessary to serve as a basis for the accounting entries may be presented in a convenient and accurate form. From the viewpoint of accounting, the proper organization and operation of the purchasing department is essential.

It is the purpose of the present chapter to discuss the following:

1. The functions of the purchasing department.
2. The organization of the purchasing department.
3. Purchase forms.
4. Purchase records.
5. Classification of purchases.
6. Planning of purchases.
7. Purchase reports.

The Functions of the Purchasing Department

The functions of the purchasing department depend upon the nature of the operations and the organization of each particular business. They are also somewhat different for a manufacturing business than for a mercantile business. In a manufacturing business the functions of the purchasing department may be defined as follows:

1. Obtaining and recording information as to prices and sources of supply of materials required for fabrication or other uses at the plant and for resale.

2. Reviewing requisitions issued by heads of departments who are authorized to initiate proposals for purchase of materials.

3. Preparing and issuing to vendors purchase orders for the materials called for by the requisitions received from the departmental heads.

4. Preparing and issuing orders to change or cancel original orders when this becomes necessary.

5. Corresponding with vendors to insure delivery of the materials ordered on or before the scheduled dates of delivery.

6. Verifying purchase invoices as to agreement with purchase orders and as to correctness of prices and terms. In some cases, the purchasing department verifies the invoices as to agreement with reports of materials received and as to calculations. It is preferable, however, that these verifications be made by the accounting department instead of the purchasing department.

7. Preparing and issuing debit and credit invoices to vendors to adjust claims and errors in purchase invoices.

8. Purchasing equipment and supplies needed by all departments.

The above functions are in practice assigned to the purchasing department. Other functions which may be delegated to the purchasing department in smaller concerns, but do not usually come under the jurisdiction of this department in larger corporations, are the following:

9. Receiving—having to do with the verifying of quantities of goods received by actual count or measurement and reporting of the quantities received.

10. Inspection—having to do with the examination and testing of materials received to determine whether they correspond with the specifications in the purchase order, especially as to quality.

11. Traffic—having to do with the classification of shipments, determination and verification of freight rates, expediting transportation and adjusting claims with transportation companies.

12. Storage—having to do with the receiving of materials into the stockroom, care of and accountability for materials on hand, and delivery of materials to the shop on factory requisition.

In a mercantile business, the functions of the purchasing department may be defined as follows:

1. Studying market conditions and general business trends.

2. Obtaining and recording information as to prices and sources of supply of merchandise needed to satisfy sales demands.

3. Analyzing sources of supply to determine the most economical quantities to purchase and the best method of delivery.

4. Formulating a buying program based on market indications, the probable sales demands, and the company's financial resources.

5. Placing contracts and purchase orders in accordance with the buying program, taking into consideration seasonal fluctuations in sales demands.

6. Scheduling shipments of merchandise bought on contract according to the requirements of the sales program.

7. Verifying purchase invoices as to agreement with purchase orders and as to correctness of prices and terms.

8. Purchasing equipment and supplies for all departments.

The above functions are ordinarily assigned to the purchasing department of a mercantile business. Other functions which may be delegated to it are the following:

9. Verifying purchase invoices as to agreement with reports of materials received and as to calculations. In many businesses these verifications are made by the accounting department.

10. Maintaining balance of stores records on merchandise stocked, and establishing in accordance with estimates of sales demands:

(a) Minimum quantities, and

(b) Quantities to order.

In many mercantile businesses it is not feasible to maintain balance of stores records. In this case frequent physical inventories should be taken.

11. Establishing prices at which inventories should be priced. This function may be performed by the controller's department discussed in Chapter LXXI.

Organization of the Purchasing Department

In most manufacturing businesses there is a central purchasing department responsible for the purchases of all departments of the business. All purchases are made by means of a purchase order issued by this department. In a mercantile store a modification of this procedure is necessary. In a large department store, for instance, there are special buyers for different lines of goods, and these buyers in many cases go to the market to select the goods they desire. Although the buyers may make their purchases personally by visiting the market, purchase orders should be issued in confirmation of these purchases, and these should be approved by the chief executive of the purchasing department. This provides a central control.

In the manufacturing business there is usually a purchasing agent who is the head of the purchasing department and has such assistants as he may need. The head of the purchasing department reports directly to the president of the company in most cases. In a few cases, he is subordinate to the production manager. In the mercantile firm there is usually some executive who has supervision, if not direct control, of all purchasing. In the various departments there may be buyers who purchase under the authority of the central purchasing agent, or the departmental head may make known his needs to the central purchasing executive, who is responsible for all purchases. For instance, the former procedure is apt to be followed in a dry goods store where buyers must be specialists because of the variation in style. The latter procedure may be followed in a grocery store where one executive may be able to become familiar with the requirements of all departments.

Businesses differ as to the extent to which they centralize their purchases. The present tendency is towards centralization. In a business which has no branches, there is rarely any reason for not having all purchases made by the central purchasing agent. This includes not only the purchase of finished goods or raw materials, but also the purchase of all equipment and supplies used. If a business has branches, it usually is expedient to grant authority to the local executive to make certain purchases. Care should be taken in this case to prevent the purchasing of commodities in small amounts by the branch which can be more economically purchased in bulk by the central office.

Purchase Forms

The purchase forms of most significance are purchase requisition, purchase order, and purchase invoice. In addition there are various miscellaneous forms which are sometimes used. These will be stated subsequently.

The Purchase Requisition

The purchase requisition is the form on which is initiated the request for the purchase of materials or supplies. It originates outside of the purchasing department. The requisition for raw materials and supplies should be made from the stores records. The requisition for equipment or for extraordinary materials originates with the department requiring the equipment or materials. The essentials of a purchase requisition are indicated by Illustration No. 118.

PURCHASE REQUISITION

No. *394*

Date *March 9* From *H. Smith*

Quantity *1000*
Article *No. 3A Bolts*

Date Required *April 1*
Advise *Mr. Bryant* *On Delivery*

Required for Production Order No. *98*

Purchase Order No. *475* Date *Aug. 7*
Issued to *W. H. Farrell Corporation*

Originated by *P. V. S.* Approved by *L. Vincent*

Illustration No. 118—Purchase Requisition

The Purchase Order

Regardless of the nature of the purchasing organization or of the kinds of goods that are to be purchased, there must always be issued some sort of a purchase order from the purchasing concern to the one from which the goods are purchased. There are certain points in the design and use of the purchase order which are of importance to accountants; namely,

1. Instructions and conditions;
2. Number of copies and distribution thereof; and
3. Use of purchase order by purchasing department.

There are a great variety of instructions and conditions which may be placed on the purchase order. The most important of the instructions which may be found on it are the following:

"(a) Ship via ———.

(b) Invoices must be rendered in duplicate.

(c) Mail bill of lading with invoice.

(d) 'Our' order number must appear on all invoices.

(e) Acknowledge receipt of order and specify delivery date."

Some of the conditions which may appear on the order are:

"(a) Materials are purchased subject to inspection.

(b) Goods in excess of quantities ordered will be returned at vendor's expense.

(c) Packing and carting charges will not be allowed.

(d) Right to cancel is reserved if order is not filled within a reasonable length of time.

(e) Seller guarantees that sale or use of articles will not infringe any United States patent."

The conditions may appear on the face of the order or they may appear on the reverse side. In the latter case, it is customary to have on the face a statement to the following effect:

"By acceptance, seller agrees to all conditions specified on the face and back of this order."

The purpose of this statement is to insure that the conditions will be brought to the attention of the vendor.

The practice with reference to the number of copies to be made is not uniform. In most businesses at least three copies are made. The original copy goes to the vendor, one copy is retained by the purchasing department, and one copy is sent to the receiving department. The latter copy is used in checking up the goods when they are received. Often a fourth copy is sent to the department which has made the requisition and serves as a notice that the requisition has been honored. Often two copies are retained by the purchasing department and one copy filed under the name of the vendor and the other filed under the date of delivery.

The purchasing department usually uses its copy as a means of follow up. This copy may be ruled differently from the other copies so that certain information can be entered on it. Some of the information which may be entered on this copy is: date acknowledged by vendor, date of shipment promised, quantity received, amount canceled, balance due, and letters written.

The advantage of having all information in one place is apparent. Sometimes this information is entered on the back of the copy of the purchase order instead of on its face.

When the goods called for by the purchase order have been received or the order canceled, the copy of the order will be removed from the "unfilled order" file and placed in the "filled order" file. The advantages of maintaining a file of unfilled orders classified by date of delivery will be explained in a subsequent paragraph in this chapter. A simple form of a purchase order is shown in Illustration No. 119.

THE CENTRAL SUPPLY COMPANY
INDIANAPOLIS

Date........................19........ Req. No........ Purch Ord. No................

To.. Via..............................

Address.. R. R.............................

Ship to..

Shipment to be made.. Terms...................

Signed..............................
Purchasing Agent

Illustration No. 119—Purchase Order

The Purchase Invoice

The student is familiar with the form and contents of the purchase invoice. A typical form is shown in Illustration No. 13, Volume I. The present discussion will be confined to a consideration of the procedure involved in the handling of the purchase invoice.

Purchase invoices should pass from the incoming mail clerk's desk directly to the purchasing department. Some method must be employed to show the compliance with each step in the routine of verification and entry of the invoice. Sometimes this is indicated on the back of the invoice by the use of a rubber stamp. Sometimes a printed form is attached to the invoice and each approval, etc., is entered on this form. The routine of handling the invoice should include the following:

1. *By the purchasing department*
   (a) Verifying date of invoice.
   (b) Checking invoice with purchase order.
   (c) Verifying price and terms.
   (d) Approval of invoice by purchasing agent.
2. *By the traffic department*
   (a) Verifying transportation charges or allowances.
3. *By the accounting department*
   (a) Checking invoice with the receiving report.
   (b) Verifying calculations on invoice.
   (d) Designating by symbol account to be charged.
   (e) Posting invoice to purchase record.

In some cases the account to be charged is indicated by the purchasing department before the invoice is sent to the accounting department.

Other Purchase Forms

Forms used by the purchasing department other than those discussed in the foregoing paragraphs are:

1. Request for quotation.
2. Quotation record.
3. Record of purchases from different vendors.
4. Catalog index.
5. Index of vendors (according to kinds of business to indicate sources of supplies).

These forms will not be discussed in this chapter, for they do not bear a direct and close relation to accounting procedure or accounting records.

Purchases Records

The most important information needed to exercise control over purchases and the purchase procedure is obtained from records of three kinds:

1. The record of original entry for purchase invoices.
2. The accounts or statistical records which provide a classification of the purchases made.
3. The unfilled order records or files.

The student is familiar with the method of making the original entry for the purchase invoices. Such entries are made in the purchase journal or the voucher register, the form and use of which have been discussed and illustrated in previous chapters. It is necessary to explain briefly the method of classifying purchases and unfilled orders.

Classification of Purchases

Purchases may be classified in various ways, but the classifications found of most value are:

1. By commodities.
2. By departments or units of responsibility.
3. By terms of credits.
4. By vendors.
5. By buyers.

If a commodity analysis of sales is made, it is desirable to have a commodity analysis of purchases that gross profit by commodities may be obtained. A commodity analysis of purchases is also of value in planning inventory control, since minimum quantities and quantities to order can be worked out for each commodity.

In a business where there is any attempt toward functional organization and control, both sales and purchases are usually classified according to the units of organization. If expenses can be classified in the same manner, the efficiency of the functional managers can be judged in terms of profit and loss. For instance, in a department store the departmental managers are held responsible for the operations of their departments, and the sales and purchases are analyzed by departments so that departmental profit and loss can be determined. In a business with branches; the responsibility for the management of each branach is imposed on the branch manager, and, in order to determine his efficiency, an analysis of purchases, sales and expenses by branches is necessary.

In planning the disbursements for purchases it is necessary for the treasurer to consider the terms on which the purchases will be made. If he knows the terms on which purchases have been made during past periods, it will assist him in making an estimate of the terms of future purchases. It may be desirable, therefore, to maintain an analysis of purchases by terms of purchase for his use.

The purchasing agent finds it of value in making contracts with vendors to know the amount of previous purchases from them. This may enable him to obtain better terms or conditions and to carry on his negotiations more satisfactorily. For this purpose a statistical record of purchases by vendors is often maintained by the purchasing department or by the accounting department for the benefit of the purchasing department.

Sometimes it is desirable to know the quantity of purchases made by different buyers and the purchase invoices are analyzed accordingly. Such an analysis may be of value in assigning quotas to buyers and keeping a check on the amount purchased by different buyers or judging the wisdom of continuing the services of particular buyers.

The student will understand that very rarely any business will maintain all the classifications explained in the foregoing. Each business will maintain the one or more classifications which are necessary to meet its problems.

Method of Showing Classification of Purchases

In each business there is one classification of purchases which is deemed of most significance, and this classification is set up in the ledger accounts. If other classifications are desired, they are maintained in supplementary records. The purchasing agent may keep a card record with vendors and enter in this record the purchases made from each vendor. The treasurer may have all invoices pass through his department and have an abstract prepared showing purchases by terms of purchase. Other classifications may be maintained by interested parties. The modern tendency is to centralize all record keeping, both of an accounting and statistical nature. In pursuance of this policy, it is well to have the necessary classifications determined and delegate to a central accounting or statistical agency the task of maintaining them. This method prevents duplication of effort and promotes accuracy, speed and economy.

Classification of Unfilled Orders

Information of much value can be obtained from the unfilled purchase orders if a proper record of them is maintained. The unfilled orders may be classified to show any or all of the following:

1. Month of delivery.
2. Contract orders.
3. Orders subject to cancellation.

It should be apparent that it is quite important to know the month of delivery of the goods for which orders are outstanding. Without this information it is impossible to determine the proper delivery dates of goods still to be ordered. If orders are outstanding for goods to be delivered three months hence, this can have no effect on purchases necessary to satisfy the needs of the current month. It has an important bearing, however, on the placing of additional orders to be delivered in three months. The time of delivery is also of value to the financial executive in arranging for the payment of the goods delivered and to the operating superintendent in planning to store and handle them.

Sometimes firms make contracts to cover their needs for certain materials or goods for a certain period of time with an agreement to require deliveries as needed. For instance, a printing company may make a contract with a paper mill to supply the paper required for one year with an agreement to take a certain minimum and to receive deliveries within certain limits each month. It is important in planning future deliveries to know the amount of the orders issued and to be issued under such contracts and the extent to which deliveries under such contracts are subject to shifting. It may be desirable to speed up deliveries or to delay them, depending upon the extent to which the sales program may exceed or fail to reach the estimated program.

In some cases purchase orders are issued subject to cancellation under certain conditions and with proper notice. If such orders are outstanding, it is desirable to have their amount available that the possible reduction or change in the purchasing program may be the more readily determined.

The purchase orders outstanding may be recorded in a columnar record which provides for the classifications desired, or they may be filed in such a way as to show the classification. For instance, a copy of the purchase order may be filed under the date of delivery, and at any time the total to be delivered on a particular date can be determined by obtaining the total of the file for that date. The form of record is immaterial so long as the information is readily available.

Planning of Purchases

The purchasing department bears a close relation to all the departments of the business. It purchases to satisfy the needs of other departments. Its principal purchases are finished goods for the sales department or raw materials for the production department; but in addition, it purchases the supplies and equipment required by all departments. There are two methods by which the purchasing department may be apprised of the needs of the various departments. One method is for each department to make a requisition for its needs and send this to the purchasing department sometime before it requires the commodities called for by the requisition. For instance, the accounting department may issue a requisition for the supplies which it needs in the way of forms, records, etc. The purchasing department makes the purchases necessary to satisfy the requisition. A better way is to determine the needs of all departments in advance for a certain period of time and to set up a schedule of deliveries to stock which will satisfy these needs. The purchasing agent will then purchase sufficient supplies to satisfy this schedule. The balance of stores records described in a preceding chapter will be useful in maintaining this schedule.

In planning purchase needs, it is necessary to give careful consideration to the sales program. If sales for the period have been estimated, it is then possible to estimate the purchases necessary to meet the sales demands. Unless an estimate of sales is prepared, it is very difficult to plan purchases accurately. It is necessary to base future purchases on past experiences, which does not take into consideration changes which are apt to take place.

Purchase Reports

It is not customary to make many reports which present information with reference to purchases only. Purchases constitute the major item of the cost of goods sold. Consequently all reports dealing with profits must take purchases into consideration whether or not they are shown as a separate item on the report. This is true in preparing the Statement of Profit and Loss and in preparing reports showing gross profits on sales and net profit on operations, such as were discussed in the chapter on Sales Records and Reports. The report on gross profits is of as much value to the purchasing department as to the sales department, since the price at which the goods are purchased is a controlling factor in determining the gross profit. The selling price of the article may be determined by adding a certain percentage to the cost price, known as the "mark up," or it may be determined by the competition of other businesses in the same line. Unless the business has a monopoly on the goods sold, competition is apt to be an important factor in determining the amount of the "mark up." If the selling price is made too high, competitors will secure the sales which the business might otherwise obtain. Even if a business has a monopoly, it is not wise to make the price exorbitant, for this will cause customers to refrain from purchasing. In any case the cost of purchases is a controlling factor in determining gross profit.

In a business selling ten lines of product a report on gross profits may be made in the form of Illustration No. 120.

In addition to gross profits the purchasing department exercises control over buying expenses and inventories. It is desirable, therefore, to have reports which will make possible effective control of each of these.

A report on buying expense may be made as shown in Illustration No. 121.

Illustration No. 121 assumes that the buying expense is to be allocated to lines of merchandise. In some businesses this is not feasible. In such cases a monthly report may be made in the same form as Illustration No. 121, except the first column will show a classification of buying expenses instead of "Lines of Merchandise." If a business does not estimate its expense in advance, the third and fourth columns will be eliminated. Although most businesses do not prepare such estimates at present, the practice of doing so is rapidly increasing.

A report on inventories which will serve the needs of the purchasing department can be made in the form shown in Illustration No. 122.

The foregoing discussion has dealt with the preparation of what are technically known as reports. In a broad sense of the term, the purchase requisition, the purchase order, and the purchase invoice are reports, since they serve to present information which is used in the management of the business.

REPORT ON GROSS PROFITS

Commodity	This Month	Estimated This Month	Per Cent Increase or Decrease	Last Month	Per Cent Increase or Decrease	Same Month Last Year	Per Cent Increase or Decrease	Ratio to Sales For This Year	Ratio of Esti'd. Profit to Estim'd. Sales This Year	Ratio of Gross Profit to Sales Last Year

Illustration No. 120—Report on Gross Profits

REPORT ON BUYING EXPENSE

Lines of Merchandise	This Month	Estimated This Month	Per Cent Increase or Decrease	Last Month	Per Cent Increase or Decrease	Same Month Last Year	Per Cent Increase or Decrease	To Date This Year	To Date Last Year	Per Cent Increase or Decrease

Illustration No. 121—Report on Buying Expense

REPORT ON INVENTORIES

Lines of Merchandise	Inventory This Month	Inventory Last Month	Per Cent Increase or Decrease	Inventory Same Mohth Last Year	Per Cent increase or Decrease	Average Inventory This Year To Date	Average Inventory Last Year To Date	Per Cent Iocrease or Decrease	Turnover This Quarter	Turnover Same Quarter Last Year

Illustration No. 122—Report on Inventories

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate the difference in the purchases made by a manufacturing business and those made by a retail department store.

2

What is the distinguishing difference between finished goods and raw materials?

3

In what ways do the functions of the purchasing department of a manufacturing business differ from the functions of the purchasing department of a mercantile business?

4

It is stated in the discussion of the functions of the purchasing department of a manufacturing business that in smaller concerns this department may have jurisdiction over: (a) receiving, (b) inspection, (c) traffic, (d) storage, but that in the larges businesses it does not exercise such control. In the latter case, in what departments will the jurisdiction over these functions be vested?

5

The X Corporation is a manufacturing business. The Y Corporation is a retail department store. Explain the probable difference in the organization of the purchasing department of these two corporations.

6

The purchasing agent of the X Company receives three purchase requisitions. The first calls for the purchasing of raw materials; the second, for the purchasing of machinery and equipment to be used in manufacturing; and the third, for furniture to be used in the office of the sales manager. Explain the origin of each of these requisitions.

7

Explain the use by the purchasing department of the copy of the purchase order which it retains.

8

A purchase invoice is received at the mail clerk's desk of the Jones Manufacturing Company. Trace this invoice from this time until it is permanently filled.

9

You are requested to examine the purchase records, procedure, and routine of the X Manufacturing Company. You find that their purchase records are inadequate, and decide to recommend the installation of a voucher register. The accounting department is entirely unfamiliar with the operation of this register. State the instructions which you would give them with reference to its operation.

10

"The Purchasing Agent finds it of value in making contracts with vendors to know the amount of previous purchases from them." Explain how this information may be obtained by him.

11

For what purpose is it desirable to maintain a classification of purchases by terms of purchase? How may this classification be shown?

12

Explain and illustrate why it is important to estimate the purchases to be made.

13

What information is necessary as a basis for the preparation of such an estimate?

14

Explain the value to the purchasing department of a report showing gross profits by lines of merchandise.

15

Explain the information which the purchasing department should obtain monthly with reference to inventories. Explain the value of this information to the department.

LABORATORY MATERIAL

Exercise No. 174

The Trial Balance of H. M. Jones on December 31, 1920, is as follows:

Cash	$11,000.00	
Bills Receivable	1,300.00	
Accounts Receivable	2,500.00	
Merchandise	3,300.00	
Furniture and Fixtures	200.00	
Real Estate	7,000.00	
Bills Payable		$ 2,700.00
Accounts Payable		4,500.00
Shipment No. 1	302.00	330.00
Shipment No. 2	520.00	480.00
Shipment No. 3	2,000.00	
Expense	550.00	
Merchandise Discount	130.00	220.00
Discount	30.00	80.00
Interest	5.00	25.00
H. M. Jones, Proprietor		20,502.00

Investigation of the accounting records and supporting data discloses the following:

1. A fire which occurred on December 20, 1920, resulted in the destruction of all the merchandise, the furniture and fixtures, and the building. The accounting records were saved by being in a safe. This safe is so badly damaged by the fire that it is not thought to be of any salable value. The lot on which the building stood is estimated to be worth $6,000.00.

2. The merchandise represented by Shipments Nos. 1 and 2 has all been sold and final accounting made therefor. No returns have been received from Shipment No. 3; it is valued at cost as shown in the Trial Balance. The term "shipment" here refers to merchandise which the owner has sent out to be sold on his account and risk. "Consignment Out" is also used as the name of an account of this nature, as explained in the discussion of consignments in Volume I.

3. An analysis of the Merchandise account shows the following:

Inventory, December 1	$ 4,000.00
Purchases for December	15,760.00
Freight and Cartage In	390.00
Sales to time of fire	11,150.00
Insurance Received on stock lost by fire	3,000.00
Cost of goods destroyed by fire . .	8,000.00
Cost of Goods shipped to commission merchants	2,700.00

The Merchandise account has been credited with the cost of goods shipped to commission merchants and with cash received from the insurance company. You deem it desirable to set up a Fire Loss account which will be debited with the cost of goods destroyed and credited with the returns from insurance. This account will also be debited with the book value of all other assets destroyed and credited with returns from insurance. The balance will be transferred to Profit and Loss.

4. An analysis of the Real Estate account shows a debit for cost of $12,000.00 and a credit for insurance of $5,000.00. The cost of the building should be transferred to the Fire Loss account and this account credited with the returns from insurance.

Instructions: 1. Make adjusting entries necessary:

(a) To close the Merchandise account and open accounts with the following: Inventory, Purchases, Sales, Freight and Cartage In, Fire Loss;

(b) To adjust the account with Real Estate;

(c) To close Furniture and Fixtures into the Fire Loss account.

2. Prepare a Balance Sheet. 3. Prepare a Statement of Profit and Loss. 4. Make the closing entries.

Exercise No. 175

The president of the S. S. Pierce Grocery Company is well pleased with the report which you prepared, as directed in Exercise No. 159, outlining the functions usually performed by the sales department of a wholesale grocery store and a possible organization of such a department. He requests you to prepare a similar report for the purchases department of his business.

Instructions: Prepare the report requested. In determining its contents, consider the instructions given in Exercise No. 159 with reference to the report of the sales department.

Exercise No. 176

The Trial Balance of H. B. Smith on June 30, 1920, is as follows:

Cash	$ 3,400.00	
Notes Receivable	1,250.00	
Accounts Receivable	4,500.00	
Merchandise Inventory	3,600.00	
Delivery Equipment	3,000.00	
Furniture and Fixtures	1,000.00	
Buildings	15,000.00	
Land	3,000.00	
Notes Payable		$ 2,000.00
Accounts Payable		5,000.00
H. B. Smith, Capital		9,515.00
Sales	450.00	20,000.00
Purchases	1,200.00	250.00
Freight In	400.00	
Selling Expense	1,800.00	
Administrative Expense	1,200.00	
Delivery Expense	800.00	
Insurance Repaid	125.00	
Interest	90.00	130.00
Res. for Dep. of Building		3,000.00
Res. for Dep. of Del. Equip.		600.00
Res. for Dep. of Furniture and Fixtures		200.00
Reserve for Loss on Bad Debts		120.00
	$40,815.00	$40,815.00

An examination of the records and supplementary data discloses the following:

1. Merchandise inventory, June 30, 1920, $3,000.00.
2. Yearly allowance for depreciation:

On building, 5% of cost.

On delivery equipment, 20% of cost.

On furniture and fixtures, 10% of cost.

The depreciation on building and furniture and fixtures is to be charged to Administrative Expenses. The depreciation on delivery equipment is to be divided equally between Freight In and Delivery Expense.

3. Estimated loss on bad debts, 1% of sales for the year.

4. Accrued interest on notes payable . . . $30.00

5. Insurance expired 65.00

This will be charged to Administrative Expense.

6. Supplies on hand $34.00

These supplies when purchased were charged to Administrative Expense.

Instructions: 1. Make the adjusting entries.

2. Prepare a Balance Sheet.

3. Prepare a Statement of Profit and Loss.

4. Compute (1) turnover for the period; (2) the ratio of gross profit to sales; (3) the ratio of operating expenses to sales; (4) the ratio of net profit to sales; (5) the ratio of net profit to the average invested capital for the period.

Exercise No. 177

As a result of the reports which you have submitted on the functions and organization of the sales and purchases departments (Exercises Nos. 159 and 175), you have been employed by the S. S. Pierce Grocery Company to make a detailed study of its organization and accounting methods. Upon an examination of its purchase records, procedure and routine, you decide that:

1. Purchases should be classified: (a) By departments. (b) By terms of credit. (c) By buyers.

2. The method of handling purchase orders and invoices should be revised.

3. Monthly reports should be made to the merchandise manager and the departmental buyers showing the following: (a) Gross profits by lines of merchandise. (b) Buying expense by departments. (c) Inventory classified by lines of merchandise.

Instructions: 1. Write a report addressed to the president of the company explaining the need for and purpose of each of the changes stated above.

CHAPTER LXIII

RECORDS AND REPORTS FOR BRANCHES

Reasons for Establishing Branches

Branches are established because it is thought that one or more of the following possible advantages may be obtained from their establishment:

1. It is easier to keep in touch with the trade and the activities of competitors if a firm has a local organization in the field than if it depends on the reports of independent jobbers or retailers who handle its goods.

2. If the branch carries a stock of merchandise, deliveries to customers can be more quickly made from the branch than from the general office of the company.

3. It may be possible to save delivery expense by shipping in carload lots to the branch and delivering in small lots to the customer from the branch stock. Lower rates can be obtained on the carload lots than can be obtained on the smaller shipments. If the customer is a considerable distance from the place of original shipment, a considerable saving may be effected by this procedure. In a business where it is the custom for the vendor to pay transportation charges, this is an important consideration.

4. If goods are marketed through an agent or independent firm, the goodwill of the customers is apt to attach to the agent or firm rather than to the product sold. If for any reason the agent or firm ceases to handle the goods of the wholesaler or manufacturer, the latter looses the benefit of the goodwill which has been built up by the former. If the manufacturer or wholesaler establishes a branch, he has an opportunity to retain permanently the goodwill established by the branch.

5. By establishing branches it may be possible to obtain the profit which the agent or jobber would otherwise obtain.

Organization for Branch House Control

The organization for branch house control depends upon the nature of the operations carried on by the branch. One of the following conditions may exist:

1. In some businesses branches are established which act only as sales agencies. Their chief function is to take sales orders which they forward to the general office for approval. If the orders are

approved as to terms, prices and credit by the general office, it makes shipment to the customer. The customer is invoiced from the general office and collections are made by it; consequently the accounts receivable and sales records are kept at the general office. Under these conditions it is necessary to have only representatives of the sales department at the branch. There will be a branch manager who will have supervision of the salesmen at the branch. The branch manager, in addition to acting as supervisor of the other salesmen, spends a considerable part of his time in a sales capacity. He is under the control of and reports to the head of the sales department. The only executive of the company who has any control of the branch, other than the sales manager, is the treasurer who exercises supervision of the petty cash fund which it maintains.

2. The branch, though not maintaining an inventory, may invoice customers and make collections. In this case there must be a representative of the credit department at the branch who will pass upon the credit standing of the customer. The branch manager may act in this capacity, or he may delegate this duty to an assistant. In any case, the one acting in this capacity is under the supervision of the general credit manager. If the branch makes collections, it will exercise custody of the funds received under the supervision and control of the treasurer.

3. The branch may maintain an inventory from which shipments are made to customers. It may maintain a sufficient inventory to fill all orders, or it may keep in stock only certain classes of merchandise and forward orders for the remaining classes to the general office for shipment. It may receive all of its inventory through the general office, or it may be authorized to purchase all or part of it from outside vendors. If an inventory is maintained, the branch is responsible to the merchandise manager, the comptroller, or other officer who has jurisdiction of inventories, for its proper maintenance and for securing a satisfactory turnover. If purchases are made from outside vendors, these must be subject to the control of the general purchasing agent.

As the activities of the branch increase, its clerical operations multiply and the number of its office employes grows larger. To promote efficiency and economy, it is desirable that a standardized office procedure be developed. To this end the office operations of each branch are placed under the supervision of the general office manager. If accounting records are maintained at the branch, these will be under the direction of the comptroller or the general auditor.

From the foregoing discussion it will be seen that, as the operations of the branch increase with the consequent increase of responsibility, it comes under the control of all the principal executives of the company. Since the primary function of the branch is to assist in the marketing of the product of the business, the branch manager is usually under the line control of the head of the sales department. He is under the functional control of the other executives who prescribe the procedures with reference to the activities relating to their departments and delegate to him the enforcement of these procedures. In some cases there may be a manager of branch houses who is the immediate superior of the branch managers. He may report to the head of the sales department, or he may report direct to the president.

The foregoing discussion has dealt with branches used for mercantile purposes. A business may have two or more factories which it uses in the production of its commodity. These factories are not branches in the strict sense of the term, but rather separate units of the company. Usually each factory is under a works manager or superintendent who reports to the head of the production department or to the president. With this exception the control exercised over the factory by the general officers of the company is very similar to that exercised over a sales branch.

Methods of Branch Accounting Control

The methods of accounting used for branches may be classified as follows:

1. No accounting records except those of a memorandum nature are kept at the branch. The books of original entry and the ledger records for recording the branch transactions are maintained at the general office. If only a few branches are maintained and the transactions which they perform are not too numerous, their transactions may be entered in the general records of the home office. For instance, the sales of the branches may all be entered in the same sales record; the cash transactions may all be entered in one cash record; likewise, purchases in one purchase record, and miscellaneous transactions in one journal. In this case only one ledger will be kept and a controlling account will be maintained in it for each branch. If the branches are numerous and their transactions large in number, separate records of original entry and a separate ledger will be maintained for each branch. The branches will make reports to the general office, which will serve as the basis for the entries in its records.

2. The branch makes all entries of original record and forwards to the general office summaries of the transactions performed. For instance, the branch records all sales made and at the end of the month sends a report to the general office, showing the total to be debited to Accounts Receivable and credited to Sales. Similar reports will be made for purchases, cash receipts, and cash disbursements. The journal entries for the month will be reported individually. The general office may post the summaries sent by the branches to individual ledgers or direct to the general ledger. When this method is followed, the periodical summaries are made on journal vouchers and these are filed in loose-leaf binders and used as posting mediums.

3. The branch maintains books of original entry and also a complete ledger. In short, it has a complete accounting system. On the ledger there will appear a controlling account with the general office which takes the place of the customary proprietorship accounts. On the ledger of the general office there will be a similar controlling account for each branch. Periodical reports, usually monthly, are made to the general office, and from these reports entries are made in the general records to adjust the controlling account maintained with the branch.

It should be understood that the foregoing classification of branch accounting methods is not intended to be arbitrary. In any particular business modifications will be found, and in many cases part of the accounting system will be centralized at the general office and other parts of it will be centralized at the branch. A better comprehension of the procedures which may be used may be obtained through a discussion of the methods of handling the following: (a) cash; (b) sales; (c) purchases; (d) expenses; (e) accounts receivable; (f) accounts payable.

Cash

In nearly all cases the branch is given a *working fund* which is sufficient to meet its needs for a limited period of time. It reports its disbursements to the general office when it needs additional funds, and the general office sends it a check for the amount of its disbursements. This will bring its fund back to the original amount. In short, the working fund is operated in the same manner as a petty cash fund. If the branch records are maintained at the general office, the branch will make a duplicate record of its cash disbursements on loose-leaf sheets designed by the general office. When the branch needs additional funds, it will forward the original copy of its cash disbursements records with the paid vouchers attached, to the general office. The general office will file these sheets in a binder and use them as its cash records for the branch. If the branch maintains its own accounting records, it may forward a copy of its disbursements record with attached vouchers to the general offices, or a representative of the general office may perform a periodical audit of the branch records.

If the general office collects the accounts receivable of the branch, the only cash receipts of the latter will be the advances from the general office. If the branch collects its accounts receivable, the receipts therefrom may be deposited in a local bank to the credit of the home office and a copy of the daily deposit slip forwarded to the treasurer. If the records of original entry for the branch are kept at the general office, the branch will make a duplicate copy of cash receipts on a loose-leaf form designed by the general office and will forward the original of this copy periodically, usually monthly. The general office will file the record of cash receipts submitted by the branch and use it as a posting medium to the branch ledger. If the branch maintains records of original entry and the general office maintains the branch ledger, the former will forward periodically a summary of cash receipts on a standard journal voucher.

Purchases

Various conditions may exist with reference to purchases:

1. The general office may ship from its stock all merchandise received by the branch. In this case the branch has no responsibility except to verify the amount received. If the branch maintains records of original entry, it will make the appropriate entry in its records to debit Inventory or Purchases and credit General Office. This entry will be made from the invoice received from the general office. If the general office maintains the branch records of original entry, the branch will approve the invoice and send it to the general office for entry.

2. The general office may make the purchase for the branch and also make payment of the invoice. When this practice is followed, the general office almost invariably makes the original record for purchases. The branch reports to the general office the amount of merchandise received and the latter makes all entries. If the branch maintains the original record, the general office approves the invoice and sends it to the branch for record.

3. The general office makes the purchase for the branch, but the latter pays the invoice. In this case, the branch may (a) enter the invoice in its records and post it at the end of the month; (b) enter it in the records and send a summary of all purchases made to the general office at the end of the month; or (c) approve the invoice and forward it to the general office to enter. The method of accounting employed will determine which method is to be followed.

4. The branch may purchase its merchandise and pay for same. In this case it may follow any of the three procedures stated in (3).

Sales

If the branch does not invoice its customers but forwards all orders to the general office, it has no responsibility for the recording of sales. If it invoices its customers, it may (a) enter the sales invoice and post to ledger accounts, if it maintains a complete accounting system; (b) enter the invoice in the sales record and make a summary report to the general office; (c) approve the invoice and forward it to the general office for entry if no accounting records are kept at the branch.

Expenses

The branch usually pays all its operating expenses, although in some cases salaries are paid from the general office. These expenses are recorded in the record of cash disbursements and posted from there to the ledger accounts either at the branch or the general office, depending on the method of accounting employed.

Accounts Receivable

If the branch collects its accounts receivable, it will maintain an accounts receivable ledger. A customer's account will be debited from a copy of the sales invoice and will be credited from the "remittance slip" which accompanies the remittance of the customer or a "settlement sheet" prepared by the company when the remittance is received. If the accounts receivable are collected by the general office, the accounts receivable ledger will be maintained at the general office. The branch will forward a copy of the sales invoice to the general office for entry in the accounts receivable ledger.

Accounts Payable

If the branch pays its accounts payable, it will maintain an accounts payable ledger or an unpaid voucher file. If its accounts payable are paid by the general office, it will forward its invoices payable to the general office and the accounts payable record will be kept there.

Branch House reports

The reports made by the branch to the general office which the latter uses as a basis of its entries for branch transactions have been explained. The reports made for the use of the branch manager and the executives of the company depend upon the nature of the operations of the branch. Usually the following are required:

(a) Monthly Balance Sheet.
(b) Monthly Statement of Profit and Loss.
(c) Monthly Expense Analysis.
(d) Monthly Inventory Report.

Monthly Balance Sheet

The assets and liabilities of the branch are usually not numerous, but are of sufficient importance to merit a report. The standard form of Balance Sheet may be used for this purpose. The difference between the assets and liabilities of the branch shows the investment of the company in the branch and is usually shown under the title of "General Office Account."

Statement of Profit and Loss

A separate Statement of Profit and Loss is prepared for each branch for the use of the branch manager and the executives of the company. The standard form as illustrated in Chapter LI is satisfactory. For the use of the executives of the company, it is useful to have prepared summary reports which show for all branches comparative data with reference to sales, selling expense, and net profits. These reports may be similar in form to Illustrations Nos. 105, 106 and 107.

Monthly Expense Analysis

This report will show in comparative form the expenses of the month classified under the principal kinds of expenses incurred, such as selling, accounting, general administrative, advertising, delivery, etc. The report will be ruled as in Illustration No. 123, to show the expenses as follows:

1. This month.
2. Last month.
3. Per cent of increase or decrease.
4. Average to date this year.
5. Average last year.

MONTHLY EXPENSE ANALYSIS

Nature of Expense	This Month	Last Month	Per cent Increase or Decrease	Average to Date This Year	Average to Date Last Year	
Selling						
Office						
Accounting						
Advertising						
Delivery						
Stores						
Total						

Illustration No. 123—Monthly Expense Analysis

Monthly Inventory Report

The monthly inventory report will show the inventory classified under the principal classes of merchandise handed. It will be ruled as in Illustration No. 124, to show the following:

1. Inventory at beginning of month.
2. Receipts during month.
3. Total to account for.
4. Sales during month at cost.
5. Inventory at end of month.
6. Orders outstanding.
7. Quarterly turnover.

MONTHLY INVENTORY REPORT

Merchandise Group	Inventory Beginning of Month	Receipts During Month	Total To Account for	Sales During Month at Cost	Inventory At end of Month	Orders Outstanding	Quarterly Turnover
Total							

Illustration No. 124—Monthly Inventory Report

QUESTIONS FOR CLASS DISCUSSION

1

The Walworth Company for many years has marketed its product through jobbers. It determines to discontinue this policy and to establish branches through which to sell its merchandise. Explain the possible advantages which the company may obtain from this method.

2

The branches of the X Corporation receive orders from customers which they forward to the general office for shipment. The general office also invoices all customers and makes collections therefor. The branches of the Y Corporation maintain inventories, invoice their customers, and make collections. Explain the control which the general officers of the company exercise over the activities of the branches in each of the foregoing cases.

3

The Walworth Company, after the establishment of the branches referred to in Question 1, desires to establish a proper accounting control of its activities. There is some difference of opinion among the executives of the company as to the accounting procedure which should be followed. Explain the possible methods of accounting which the company may adopt.

4

On your recommendation the Walworth Company determines on the following:

(a) That the branch ledgers are to be maintained at the general office.

(b) That the detailed records of original entry are to be maintained at the branches.

(c) That each branch is to have a working fund of $10,000.00, to be replenished as often as necessary by the general office.

(d) That customers are to be invoiced by the branches and collections made by them.

(e) That all merchandise sold by the branches will be purchased by the general office, but all payments for merchandise purchased from outside vendors are to be made by the branches.

Under these conditions, explain how the cash receipts and disbursements of the branches will be recorded and controlled.

5

The general office of the Walworth Company purchases material from the Ames Company, of Worcester, Massachusetts, to be shipped to the New York branch. Trace the procedure from the time the order is placed until the final entries are made on the records of the general office.

6

The Chicago branch of the Walworth Company receives an order from a customer. Trace the procedure from the receipt of the order until the final entries are made on the records of the general office.

7

The general office of the Blank Corporation has followed the practice of making the purchases for its branch offices as well as paying the invoices. The company decides to permit the branches to make these purchases and pay their invoices. Explain the changes in procedure which will be required.

8

The branches of the King Manufacturing Company maintain a complete set of records. The general office supplies the branches with all their merchandise. When shipments are made, duplicate invoices are prepared. One copy is used as the basis of the entries on the records of the general office. The other copy is forwarded to the branch, and, after being verified as to quantity on the receipt of the goods, serves as a basis of the entries on the branch records. You have before you a Trial Balance of the general ledger of the general office and of the general ledger of the New York branch, which are taken on the same day. The former shows the New York branch account to be $1,800.00 larger than the latter shows the General Office account. Explain a possible reason for this discrepancy.

9

The new treasurer of the Wharton Construction Company finds that the branches of the company collect their accounts. He desires to have the collections made from the general office. Explain the changes in procedure which must be made to accomplish this.

10

"The branch usually pays all its operating expenses, although in some cases salaries are paid from the general office." Why may salaries be paid by the general office and not operating expenses?

11

In some companies the accounts receivable records are kept at the branches and collections made there, but the accounts payable record is maintained at the general office and all payments made by it. Can you explain why the treatment of accounts receivable should be different from that of accounts payable?

12

Mr. Hobson is general manager of the Hobson Manufacturing Company, which has numerous branches. What information will he desire to obtain with reference to these branches from the periodical reports?

13

In what way will a Balance Sheet of a branch differ from the Balance Sheet of the general office?

14

The manager of branches of the Hudson Manufacturing Company desires to have information monthly with reference to the expenses of each branch. Draw up a skeleton report that will answer his purposes.

15

He also desires a monthly inventory report. What value will this be to him? Explain the contents of this report.

LABORATORY MATERIAL

Exercise No. 178

The Union Manufacturing Company has ten branches through which it markets its product. You are requested to devise a branch accounting system suitable to the needs of the company. By an investigation of the operating methods of the company you determine the following:

(a) That the branches maintain an inventory of merchandise sufficiently large to meet all the sales demands of their customers.

(b) That the branches secure all their merchandise from the factories of the home company.

(c) That the branches invoice customers and make all collections.

(d) That the branches pay all their expenses.

(e) That the branches maintain a cash fund of $10,000.00. This is replenished by the home office as often as necessary. All collections by the branches are deposited daily in a local bank to the credit of the general office.

After considering these facts you decide that it is desirable:

(a) That a separate accounting system be maintained for each branch; that branch ledgers should be maintained at the general office and the monthly reports prepared there; and that all records of original entry should be maintained at the branches.

(b) That the branches should submit monthly summaries which will serve as a basis for the posting mediums to the accounts.

Instructions: 1. Prepare a report to the general manager of the company which explains the following:

1. The procedure to be followed in handling the following: (a) cash; (b) sales; (c) purchases; (d) expenses; (e) miscellaneous transactions; (f) accounts receivable; and (g) accounts payable.

2. The reports which should be prepared for the use of the branch manager and the general officers of the company.

Exercise No. 179

You are employed by James Long and Company, of New York City, to take charge of a branch store at Buffalo, New York. At the time you take charge of the store it has the following assets:

Merchandise Inventory	$2,500.00
Cash	100.00
Furniture and Fixtures	300.00

You are to receive a salary of $50.00 a month and ten per cent of the gross profits. During the year you pay for rent and other expenses of operating the store, $500.00. The goods shipped from the main store during the year amounted to $22,000.00, and your sales amounted to $30,000.00. At the end of the year the assets of the branch store, in addition to the cash, are as follows:

Merchandise Inventory	$1,900.00
Furniture and Fixtures	270.00
Accounts Receivable	500.00

You have remitted $17,000.00 to the home office in payment of merchandise received. You have drawn the amount of your salary, but have taken out no cash for your share of the profits.

Instructions: 1. Prepare a statement showing the net profits of the branch for the year.

2. Prepare a statement showing the cash due to the general office at the end of the year.

Exercise No. 180

The King Manufacturing Company, of Chicago, establishes a branch office in St. Louis on January 1, 1919. The general office advances $5,000.00 in cash at the time the branch office is opened. During the first year the general office ships to the branch merchandise invoiced at cost $75,000.00. At the end of the year the records of the branch show the following:

1. Sales for the Year . . . . An average gross profit of 25% has been made on these sales.	$60,000.00
2. Rebates and Allowances on Damaged Goods	1,200.00
3. Salaries and Administrative Expenses Paid	4,500.00

4. Freight Paid on Goods Received from Home Office	2,400.00
5. Furniture and Fixtures Purchased . .	500.00
6. Remittances to Home Office	34,000.00
7. Uncollected Accounts Receivable . . .	15,000.00

The only assets of the branch are Cash on Hand, Inventory of Unsold Goods, and Uncollected Accounts.

Instructions: 1. Prepare a statement to be submitted to the home office, showing the results of the branch operations for the year.

2. Set up the journal entries necessary to show the foregoing transactions on the branch ledger.

3. Post to accounts and close branch ledger by journal entries.

Exercise No. 181

The Randlow Manufacturing Company, with its main plant in Philadelphia, opens a branch in Pittsfield, Massachusetts. The branch maintains a separate ledger. The Trial Balances for the company on December 31, 1919, are as follows:

Philadelphia Office

Plant	$125,500	Capital Stock	$300,000
Material and Supplies (Inventory January 1, 1919)	75,000	Notes Payable	35,000
Purchases	253,500	Accounts Payable	45,550
Labor	168,210	Net Sales	415,400
Selling Expense	10,000	Surplus	35,100
Administrative Expense	12,000		
Miscellaneous Expense	2,190		
Insurance	2,500		
Accounts Receivable	89,450		
Cash	5,000		
Notes Receivable	22,000		
Branch	65,700		
	$831,050		$831,050

Pittsfield Branch

Plant	$27,900	Net Sales	$103,900
Material and Supplies (Inventory January 1, 1919)	15,175	Main Office	66,700
Purchases	50,000		
Labor	35,000		
Administrative Expense	5,000		
Miscellaneous Expense	2,500		
Insurance	1,800		
Accounts Receivable	26,225		
Notes Receivable	4,000		
Cash	3,000		
	$170,600		$170,600

Inventories of material and supplies December 31, 1919:

Philadelphia Plant	$40,000
Pittsfield Branch	21,500

There are no inventories of finished goods because all finished goods were sold on contract for daily shipments and are all billed on closing.

One-half of the insurance at each plant is expired at the end of the year.

Depreciation on plant at each factory is 10% of book value.

Estimated loss on bad debts at each plant is 1% of sales.

Instructions: 1. Prepare Balance Sheets for the main office and the branch.

2. Prepare Statements of Profit and Loss for the main office and the branch.

3. Prepare closing entries for the books of the main office and the branch.

4. Prepare a Statement of Profit and Loss showing the results of the operations of the company as a whole.

CHAPTER LXIV

RECORDS AND REPORTS FOR THE CREDIT DEPARTMENT

The Credit Problem

In modern business practice a large percentage of the merchandise sales and purchases are "credit" transactions. The purchaser receives the merchandise with the agreement to make payment at a future date. As a result of this policy, the Balance Sheets of most industrial firms show *accounts receivable due from customers* as one of the most important of the current assets. It usually contests with merchandise inventory for the supremacy of the current assets. In addition, on many Balance Sheets notes receivable, which represent but another form of claims against customers, is an item of considerable importance. The accounts receivable and notes receivable are regarded of prime importance because it is largely from the liquidation of these that the business expects to obtain the funds with which to meet its current liabilities. It is important, therefore, that customers pay their accounts and notes, and that they pay them promptly according to the terms of their agreement.

To insure the fulfillment of the customer's contract and the consequent fulfillment of the contracts of the business with its creditors, two things are necessary:

1. That care be exercised to grant credit only to those whose past conduct and present financial condition prove a willingness and an ability to pay their obligations.
2. That vigilance be exercised to enforce payment in those cases where the customer fails to meet the terms of his contract.

To accomplish these ends is a task of considerable magnitude. To explain the methods by which they are accomplished is the purpose of the present chapter.

The Functions of the Credit Department

The granting of credit and the enforcement of collections are usually regarded of sufficient importance to make expedient the organization of a "credit department" under the control of a functional staff executive, which is responsible for their performance. The functions which are usually delegated to the credit department are the following:

1. Collection of data with reference to business and trade conditions in general and with reference to particular trades and lines of business.

2. Collection of information with reference to prospective customers who apply for credit and passing on their requests.

3. Collection of data with reference to customers whose original request for credit has been granted and the maintenance of a continuous record of the relations of the business with these customers.

4. Maintenance of a record of all past due accounts.

5. Enforcement of the collection of all accounts past due.

All requests for credit are not necessarily desirable. Companies and individuals may desire to purchase goods on account when they are not in a wholesome condition. If credit is extended to them the seller will suffer by having to wait beyond the agreed date for settlement or by receiving no payment at all. It is the function of the credit department to determine which accounts are desirable and which are deemed unprofitable. To do this it must not only have information with reference to the financial condition of the particular applicant, but also know the general market conditions that it may judge the applicant's condition in terms of these conditions and judge the future of the applicant in the light of the market tendencies. After the applicant's original request has been granted, there is no assurance that he will continue to be a desirable credit risk. It is necessary, therefore, that the credit department maintain an available record of information showing the relations of the business with its customers. Finally, no matter how careful the credit department may be, there will be some customers who will not fulfill the terms of their agreement. This necessitates that the credit department take steps to secure the collection of all past due accounts.

The Organization of the Credit Department

The organization of the credit department in any particular business depends on the size of the business, the nature of its operations, and the organization of the business as a whole. In any case, the proper performance of its tasks requires the use of trained men under the supervision of a responsible executive. In some businesses the credit department is subordinate to the office of treasurer, since, from one point of view, the work of the credit department is financial in nature. In other businesses, particularly retail stores, the credit department is separate from the other executive departments to the extent that its executive head exerciss th same powers of administration as the other executives. In some cases there is a collection manager who is responsible for the enforcement of collections. In this case the credit department is restricted to the granting of credit only. The principal requirement is that the department be organized so that it can work in efficient co-operation with the sales, finance, and accounting departments. It must cooperate with the sales department in securing as great a volume of sales as possible, consistent with the reduction of losses on bad debts to a minimum. It must co-operate with the financial department in estimating the funds required to finance the credit to be granted and the probable receipts from the credits granted. After this estimate is formulated into a financial program, it must render all assistance possible in its execution. It must co-operate with the accounting department because it is from this department that it obtains a considerable part of the information on which its operations are based.

Granting of Credit

It is the function of the credit department to pass either directly or indirectly upon each sales order for the purchase of merchandise on account which is received. Its method of doing this depends somewhat on whether the request is from one who has not had former relations with the house or is from a former customer. When an original request for credit is received, the credit department will have no information on file and must begin an original investigation with reference to the applicant. The sources of information with reference to a prospective customer are numerous, but the following are those of most importance: (a) The applicant. (b) The salesman. (c) Mercantile agencies. (d) Credit associations. (e) Miscellaneous.

Many firms have standard forms which they provide applicants for credit on which to submit information with reference to themselves. These forms usually call for a Balance Sheet, a condensed Statement of Profit and Loss, and answers to various questions with reference to the nature of the firm's proprietorship, contingent liabilities, outstanding orders, etc. Formerly little attention was given to the Statement of Profit and Loss. The present tendency is to attach very great importance to it. The applicant for credit is in a better condition to give information with reference to himself than anyone else. There is always the danger, however, that the information which he provides may be inaccurate. The modern tendency of presenting a Balance Sheet and Statement of Profit and Loss which has been verified and attested correct by a certified public accountant will do much to insure the reliability of the information presented by the applicant.

Many firms require the salesman, when he obtains an original order, to send with it his opinion of the financial condition of the purchaser and to support this opinion with such information as he is able to secure. Although the salesman may be in a position to obtain much valuable information, he is limited in his investigation. An alert salesman is able to learn if the various companies he solicits are progressive, and if their respective markets are encouraging for trade possibilities. It is not likely that he will know the exact figures on the financial condition of his buyers, and there is a tendency for the salesman to be over-optimistic, since he naturally desires to increase his sales as much as possible.

There exist certain mercantile agencies, the best known of which are R. G. Dunn and Company and Bradstreets, whose purpose it is to collect information relating to the financial condition of business firms. All firms are graded by a standard developed by the agency and given a rating in a report which the agency sells to business men. This report is revised frequently in order that it may provide up-to-date information with reference to all business firms. The agencies each maintain a staff of reporters, who by personal visit and investigation collect the information which serves as the basis of the firm's rating. The agency reports are very valuable, but it is unwise to place too great dependence in them. The representatives of the agency may be misled and may not obtain accurate information, since they must depend to a considerable degree on the information supplied by the business itself. The ratings given in the reports of the two principal agencies should be compared to see if they agree. If there is disagreement, this serves as a warning. In any case, the agency rating should be verified by information gained from other sources.

In many cities there have been organized credit men's associations which collect data with reference to merchants and have this available for the information of its members. The members supply information with reference to their customers, and in this way much valuable data can be collected. In some cases the local organizations affiliate with a national organization, and, by this means, service may be rendered on a larger scale. There are also organizations in particular lines of trade which collect and distribute credit information.

There are miscellaneous sources of credit information, such as banks, attorneys, other merchants and local correspondents. All of these may be used to advantage under some circumstances.

The foregoing discussion has dealt with the means of obtaining information with reference to a new applicant with whom there has been no previous dealings. When a former customer asks for additional credit, all of the foregoing sources of information may be employed, but usually the first information sought is that shown by the records of the credit and accounting department. There are two reasons for this: (1) These various sources of outside information have no doubt been utilized at the time of the first order received from the customer, and, as a result of this investigation, the customer has been given a rating which is shown in the accounting and credit records. (2) The record of the customer's dealings with the firm serves as a check upon the original rating. If his relations with the firm confirm the original estimate of the credit department, it is unnecessary to investigate his credit in detail again unless considerable time has elapsed since the first investigation, or something unfavorable with reference to him has been brought to the attention of the credit department.

If the original investigation of a customer's credit shows him to be a satisfactory credit risk, it is customary to set a certain credit limit up to which his account may extend without further permission from the credit department. In many cases, this credit limit is shown on the customer's card in the accounts receivable ledger. When an order is received, it will be referred to a clerk in the credit department or to the accounts receivable section in the accounting department, and the customer's ledger record will be examined. If the sales order does not bring his indebtedness to the firm above the credit limit which has been set, the order will be authorized without further investigation and sent to the proper department to be filled. If the new order causes the customer's account to go beyond the credit limit originally set by the credit department, it must be referred to the head of that department or one of his principal assistants for consideration. The credit department may decide to accept the order even though it results in extending the original credit limit allowed to the customer. In fact, it is customary to be conservative and set the limit low.

The use of a credit limit relieves the credit department of a great amount of work in passing upon orders, and, if properly used, is quite satisfactory. There are many customers who never purchase from the firm as large an amount as their financial condition would warrant. It requires only useless work to have each sales order from such companies passed upon by the executives of the credit department. If this method is employed, it is necessary, however, that the credit department have up-to-date information with reference to its customers, in order that it may be aware of any changes in their financial condition which are of sufficient importance to necessitate a change in the credit limit as originally established.

It is customary, therefore, for the credit department to maintain some kind of a record for each of their principal customers. It is usually not necessary to maintain such a record for customers who make small intermittent purchases, and it is also not customary to set a credit limit on such customers but to require that each of their orders be referred to the credit department for consideration.

The record kept by the credit department may be of various kinds. Usually considerable data is collected with reference to the customer at the time of the original investigation of his credit. This will usually be filed, and, as new data is obtained with reference to the customer, this will be filed with the original data. The credit departments of some firms keep no other record with reference to the individual customers and turn to their files whenever information is desired. In a small business this method may be satisfactory, but in a business where there are many customers, this procedure proves uneconomical. It is desirable, therefore, to establish a credit record for each customer, upon which is maintained the essential information with reference to him. The form of this record, of course, will vary, depending upon the methods of sale and the general business procedure of the firm. A typical form is shown in Illustration No. 125.

By the use of a form similar to the one shown in Illustration No. 125, the credit department can obtain quickly the information which it needs at any time with reference to any of its regular customers. If it desires more detailed information, this can be obtained by reference to its files.

To keep such a form up-to-date requires considerable labor and some credit departments prefer to refer to the ledger account of the customer to obtain most of the information contained on it.

This procedure, however, is apt to interfere with the work of the accounts receivable section, and there is considerable to be said in favor of the credit department's maintaining a separate record for its information. This can be accomplished without difficulty by having a copy of each voucher which affects the customer's account sent to the credit department so that an entry can be made on the customer's record.

Name..Town..............................State........................

Salesman....................................Business..........................Population..................

Date	Ratings				Order	Canceled	Charged	Retd	Net Sale	Terms	Paying Record			Comment
	D	B	C	S							Disct	4 Mos	Slow	

Illustration No. 125—Customer's Credit Record

Handling of Collections

The practices of business firms vary greatly with reference to the handling of collections. In some firms a copy of each sales invoice is sent to the credit department and is filed by it under the date of payment. If this method is followed, it is necessary to have some means of determining whether the invoices are paid when due. One method is for the credit department to remove from the file each day all invoices falling due on that date and to send them to the accounting department. The accounting department checks these invoices against the ledger accounts and returns to the credit department those which have not been paid. The credit department may then request the customer to remit and file the invoices under a date a short time in advance so that if the remittance is not made promptly, the collection can be followed up.

Another method is for the cashier to prepare in duplicate a settlement sheet for each remittance received from the customer. These settlement sheets are sent to the accounts receivable section, and, after they have been compared with the ledger account and filled in in the manner described in Chapter LXV, one copy is sent to the credit department. From these sheets the credit department can determine the invoices which have been paid and remove these from its file.

In other businesses a copy of the invoice is not sent to the credit department, but, instead, it receives a copy of the statement which is sent to the customer at the end of the month. If the statements are sent at the end of the month, they should be paid within a reasonable length of time thereafter, depending upon the terms which have been made with the customer or upon the customs of the trade. For instance, in some lines of business, statements are sent to the customer on the first day of the month with the understanding that they are to be paid on or before the fifteenth day of the month. The credit department files the statements under the date when they are expected to be paid. When remittances are received, a copy of the settlement sheet will be sent to the credit department in the manner described above, and by means of these sheets, the credit department can remove from its files the statements which have been paid. The statements which are not paid according to the terms agreed upon will be removed from the files, and a letter will be sent to the customer, reminding him of his failure to pay at the proper time and requesting remittance. The unpaid statements will then be filed under a date a short time in the future, and, if not paid by that time, a second letter will be sent. The statements are again filed under a future date, and action will be taken if payment is not made. To illustrate, a statement may be sent on the first of the month, with the understanding that it is to be paid on or before the fifteenth day of the month. The credit department will file a copy of the statement under date of the fifteenth of the month. Letters will be sent to all customers who have not paid by the fifteenth, and statements will be filed under date of the twenty-fifth. Another letter will be sent to those who have not paid by the twenty-fifth, and the statements will be filed so that they will present themselves automatically in ten days. By this means there is no danger that there will be a failure to follow up a delinquent customer, since the statements which require action each day will be automatically brought to the attention of the proper party.

There are various methods of handling collections, but it is thought that those discussed are sufficiently typical to give the student a general idea of collection procedure. It should be emphasized in this connection that, regardless of the amount of information which may be kept by the credit department, the final and authoritative record of the relation of the customer to the business is his account in the accounts receivable ledger. It is very desirable, therefore, that this record be kept accurate and up-to-date. In order to accomplish this, all sales should be entered to the debit of the customer's account immediately. This can easily be accomplished by sending a copy of the sales invoice to the accounts receivable section of the accounting department so that entries may be made from these daily. In some small businesses where a detailed sales journal is kept, postings are made from this to the accounts receivable ledger. If this practice is followed, the posting should be made daily and not delayed until the end of the month when the postings are made to the general ledger.

In the same manner, the credits to the customers' accounts should be made daily from settlement sheets, remittance slips, or the cash record and should not be postponed until the cash record is posted at the end of the month. The terms of sale should be placed in the explanation column of the customer's account. It is also well to indicate on the credit side the method and time of payment by the customer. The time of payment is, of course, indicated by the date. If the customer pays cash, this may be indicated in the explanation, or the practice may be followed of indicating all methods of payment other than cash, and, assuming that when no explanation is given, cash payment is made. If a customer gives a trade acceptance or note in settlement of his account, this will be shown in the explanation column. If the customer does not pay the acceptance or note when it becomes due, it should be charged back to his account and taken out of the Notes Receivable account. By this means the account will show at any time in the future that the customer dishonored his acceptance or note, and this is very important information from a credit viewpoint. If the acceptance or note is worthless or doubtful, it should be taken out of the account as soon as it is charged to it and transferred to the debit of Reserve for Bad Debts or Doubtful Accounts, but it should be passed through the customer's account so that this essential information will be shown in his account.

Credit Reports

The reports of chief interest to the credit department are those dealing with sales, accounts receivable, and collections. The credit department as well as the treasurer should be interested in a comparison of outstanding accounts receivable with sales, and of collections with sales. A report which will afford a comparison of accounts receivable at the end of the period with accounts receivable at the beginning of the period and of accounts receivable with sales is shown in Illustration No. 126. A report which will provide the same comparisons with reference to collections as shown in Illustration No. 127. These reports assume the existence of branches through which the company's goods are marketed. The same form of report can be used for a business without branches except the accounts receivable, collections and sales will not be classified by branches.

MONTHLY REPORT ON ACCOUNTS RECEIVABLE

Month of.................. 192....

	Sales Unit	Accounts Receivable This Month		Per Cent Increase or Decrease	Ratio of Accts Rec. to Sales This Year	Ratio of Accts. Rec. to Sales Last Year Same Date
		End of Month	Beginning			
	Detroit Branch					
	New Orleans Branch					
	Boston Branch					
	New York Branch					
	Chicago Branch					
	Seattle Branch					
	Philadelphia Branch					
	Portland Branch					
	Los Angeles Branch					
	Total					

Illustration No. 126—Monthly Report on Accounts Receivable

MONTHLY REPORT ON COLLECTIONS

Month of.................. 192.....

Sales Unit	Estimate This Month		Per Cent Est. Collect. to Est. Sales	Actual This Month		Per Cent Collections To Sales		
	Sales	Collections		Sales	Collections	This Month	Last Month	Same M. Last Yr
Detroit Branch								
N. Orleans Bch.								
Boston Branch								
N. York Branch								
Chicago Brach								
Seattle Branch								
Phila. Branch								
Portland Bch.								
Los Angeles Bh.								
	Total							

Illustration No. 127—Monthly Report on Collections

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate the importance of credit control.

2

The treasurer of the Jefferson Company has been responsible for its credit policy. This treasurer's theory is that as long as a customer is honest and willing to pay he should be permitted to buy goods on account. What do you think of such a policy?

3

The president of the Jefferson Company has decided to set up a separate credit department. Explain the duties which you would recommend to be delegated to this department.

4

Compare the organization of the credit department of a New York City department store with that of a small town department store.

5

You have been asked to examine the methods of the credit department of the Rector Trading Company. The outstanding defect that you find is that there is no co-operation between the credit and financial departments. State your argument to the president of the company as to why there should be greater co-operation between these departments.

6

Trace the procedure by which the credit standing of a prospective customer is investigated.

7

"The present tendency is to attach very great importance to the Statement of Profit and Loss." Why should so much importance be attached to it?

8

The credit manager of the X Company says that he uses Dunn's and Bradstreet's exclusively in determining the desirability of a customer for credit. What criticism would you make of such a policy?

9

Compare the method of obtaining information with reference to a new applicant for credit with the method of obtaining information with reference to a former customer. Explain the reason for the difference in method.

10

Upon investigation of the credit methods of the Y Company you find that no limit has been placed upon the amount of credit any of the customers may secure. What reasons would you give to the manager of the credit department to induce him to establish the opposite policy?

11

Explain the nature of the information which the credit department should keep with reference to customers and the method by which this information may be maintained for ready use.

12

The Paterson Mercantile Company finds that its collection system is inadequate. Many accounts are overdue and the credit department is lax in enforcing payment. You are asked to investigate the cause. Explain the principal defects which you would expect to find.

13

Explain the method of maintaining an accounts receivable ledger so that it will be of most service to the credit department.

14

"It is the function of the credit department to pass either directly or indirectly upon each sales order for the purchase of merchandise on account." Explain how the credit department may pass *indirectly* on the sales orders.

15

Explain the content and purpose of the reports on accounts receivable and collections which are shown in Illustrations Nos. 126 and 127.

LABORATORY MATERIAL

Exercise No. 182

The Balance Sheet of the Smith Steel Company on March 1, 1920, is as follows:

Assets

Land		$ 59,748.80	
Buildings		69,461.74	
Equipment		130,214.29	
Cash		3,472.88	
Accounts Receivable		11,939.98	
Bills Receivable		934.00	
Stores		15,357.15	
Process		2,804.04	
Unexpired Insurance		172.33	
Organization Expense		14,990.74	
Total Assets			$309.095.95

Liabilities and Capital

Accounts Payable		$ 42,569.95	
Bills Payable		13,300.00	
Payroll Accrued		1,229.74	
Interest Accrued		311.00	
Reserve for Bad Debts		1,153.41	
Reserve for Depreciation of Buildings		2,680.59	
Reserve for Depreciation of Equipment		11,732.48	
Preferred Stock	$100.000.00		
Common Stock	200,000.00		
	$300,000.00		
Deficit	63,881.22	236,118.78	
Total Liabilities and Capital			$309,095.95

The Jones Steel Company is contemplating the purchase of the common stock of the company and requests you to make an examination of the records and accounts and state what in your opinion is the correct book value of the common stock. Your examination discloses the following:

1. A mortgage of $25,000.00 is outstanding against the land. This has been subtracted from the book value of the asset. The book value of the Land account was increased $40,000.00 above cost two months ago based upon an estimate of the directors as to its present value. Your investigation convinces you that the present value of the land is not in excess of its cost.

2. The company was organized ten years ago and organization expenses of $14,990.00 have been carried on the books since the time of organization. You decide that this item should have been written off during the early life of the corporation.

3. You discover liabilities of $2,100.00 which are not on the books.

4. There is a provision in the charter of the company that the preferred stock of the company has a preference as to assets to the amount of its par value. You decide, therefore, that in determining the book value of its common stock, the preferred stock at par value must be subtracted from the net worth.

Instructions: 1. Prepare a Balance Sheet in proper form, showing the financial condition of the company as of March 1st, after giving effect to the foregoing adjustments.

2. State what you think to be the proper book value of the common stock.

Exercise No. 183

The treasurer of the Frazer Manufacturing Company finds that the losses from bad debts are increasing rapidly each year. He decides that this is due to the lack of adequate credit and collection procedure. He requests you to investigate and recommend a procedure which will provide an effective control of credit and collections. From your examination you learn the following:

> 1. There is not a separate credit department. An assistant to the treasurer is responsible for the passing on sales orders and securing collections of unpaid accounts. He has an inadequate staff of assistants and has no standardized procedure by which to exercise control of either credits or collections.
>
> 2. Orders are received during the year from approximately 20,000 customers. Seventy-five per cent. of the orders received are from former customers and the remainder from new customers.

3. Statements are sent to all customers on the first day of the month with the agreement that payment is to be made on or before the fifteenth of the month.

Instructions: Write a report to the treasurer covering the following:

1. The need for a well-organized credit department.
2. The functions of this department.
3. The procedure to be followed in granting credit.
4. The procedure to be followed in making collections.

Exercise No. 184

You are credit manager of the Crawford Manufacturing Company. An order is received from Hodge & Taylor, a partnership engaged in manufacturing operations. At your request for information with reference to their financial condition, they submit the following statement:

Hodge & Taylor—Balance Sheet, June 30, 1920

Assets		
Cash	$ 10,000.00	
Real Estate (Factory)	30,000.00	
Machinery and Tools	15,000.00	
Raw Materials	18,000.00	
Goodwill	9,000.00	
Accounts Receivable	160,000.00	
		$242,000.00
Liabilities		
Accounts Payable	54,000.00	
Bills Payable	140,000.00	
A. C. Hodge, Capital	36,000.00	
E. R. Taylor, Capital	12,000.00	
		$242,000.00

Instructions: **1.** Write a letter to Hodge & Taylor containing the following:

(1) Questions which you desire to ask with reference to the items on the statement which they have submitted.

(2) Request for such additional information as you think you need to know.

Exercise No. 185

The Jones Steel Company has concluded an agreement with the stockholders of the Smith Steel Company by which it purchases the common stock of the latter for $85,000.00. The Jones Steel Company donates $115,000.00 of the common stock to the company. It also decides to give effect in the accounts to the adjustments which you showed on the Balance Sheet made in Exercise No. 182.

Instructions: 1. Make the journal entries to give effect to the donation of stock and to the adjustment of the assets and liabilities.

CHAPTER LXV

RECORDS AND REPORTS FOR THE FINANCIAL DEPARTMENT

Relation of the Financial Department to the Other Departments

Funds are required to finance the operations of all the departments of the business. The operations of the departments necessitate the use of services and supplies, and the purchase of these involves the expenditure of funds. As a result of the operations of the several departments a service or a commodity is sold. From these sales, funds are received either immediately or at the expiration of the period of credit which is granted to customers. Some funds are received from other sources than sales of merchandise. Stocks or bonds may be sold, and notes may be issued to banks or others for cash. It can be seen, therefore, that the operations of the business result in the constant receipt and disbursement of funds. It is necessary to plan the operations of the business so that the cash receipts will be sufficient to meet the necessary cash disbursements.

The ideal financial program would be one which provided for the receipt each day of the same amount of funds that must be disbursed on that day. It is impossible to make plans which are sufficiently exact to make possible such a schedule of receipts and disbursements, so it is necessary to maintain a "cash balance" which will insure against a discrepancy between the cash receipts and the cash disbursements. The custody of the cash receipts, the maintenance of the cash balance, and the control of the cash disbursements are among the most important functions of a business. In most businesses these functions are delegated to a separate department which may be termed the *financial department* or the *treasurer's department.*

It is the purpose of this chapter to outline the functions of the financial department and to explain the records and reports which assist it in the performance of these functions.

Functions of the Financial Department

The functions of the financial department are not uniform, but those usually performed by it are the following:

1. Custody and Maintenance of Funds

(a) Depositing cash received from all sources.

(b) Setting up and maintaining all petty cash funds.

(c) Making all transfers of funds between company depositories.

(d) Negotiating all short-time loans, under the borrowing limits set by the president, necessary to meet the current obligations of the company.

2. Disbursement of Funds

(a) Authorizing of all disbursements made by means of checks.

(b) Supervising of all disbursements made from petty cash.

3. Determination of Financial Requirements

(a) Estimating cash receipts from the operations of the business.

(b) Estimating the cash disbursements necessary to finance these operations.

(c) Determining the excess of disbursements over receipts or vice-versa.

4. Formulation of a Financial Program

(a) Setting forth, for approval of superiors, methods by which funds may be secured to meet the financial requirements, as determined under (3).

5. Purchase and Sale of Securities

(a) Purchasing of securities of other companies when directed by the board of directors.

(b) Selling these securities when authorized by the board of directors.

6. Financial Reports

(a) Preparing of published reports of the financial condition and progress of the company for submission to the stockholders, directors and creditors.

7. Miscellaneous

(a) Preparing of reports for tax purposes. Submission of these to governmental units and payment of taxes.

(b) Determining the amount of insurance which should be carried and the placing of this insurance.

(c) Custody of all financial documents of the company, such as deeds, mortgages, and notes.

8. Credits and Collections

In many businesses, the granting of credit and the enforcement of collections are functions of the financial department. These functions are deemed of sufficient importance to merit separate treatment so their discussion has been given in the chapter immediately preceding.

Organization of the Financial Department

The treasurer is the head of the financial department. He acts under the direction of the board of directors and is under the administrative control of the president of the company. There may be one or more assistant treasurers who perform the general duties prescribed by the board of directors, and the specific duties by the treasurer. In a business of any considerable size, the treasurer has as his assistant a cashier who is responsible for the handling and control of cash receipts. The cashier receives all incoming cash and deposits it to the credit of the company. In most businesses disbursements are made only in response to approved vouchers. These vouchers are usually prepared by the accounts payable section of the accounting department. All invoices, after they are approved, are sent to this section which prepares a voucher and files it under the proper date of payment. On the date of payment the voucher is removed from the file, a check prepared, and the check, accompanied by the voucher, is submitted to the treasurer for his signature. In some cases, the check is prepared at the same time as the voucher, but is left unsigned until the date of payment.

The accounts payable section is usually responsible for the preparation of the voucher, its record, and the record of the checks issued, as well as the preparation of the check. It, therefore, per-

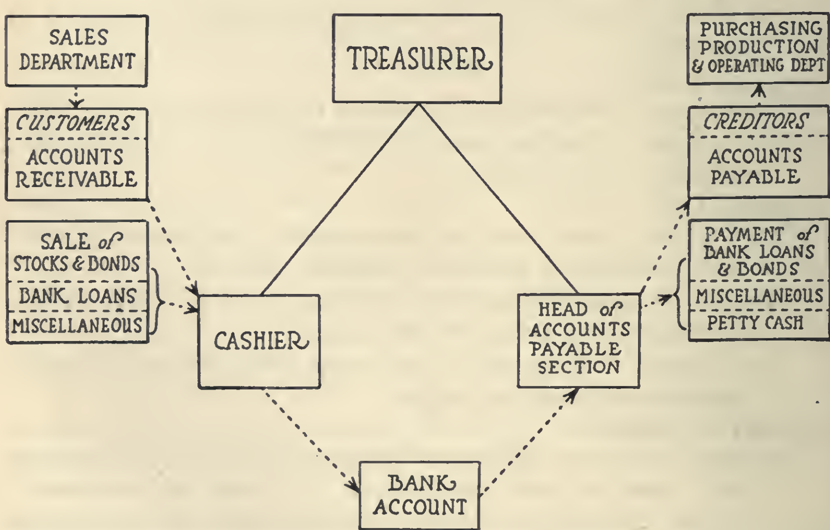

Illustration No. 128—Diagram Showing Relation of Treasurer to Cash Receipts and Disbursements forms services for both the accounting and the financial departments. In some businesses the treasurer is the one responsible for the accounting, as well as the finances of the business. In this case, the accounts payable section is entirely under his control. If the accounting department is not under the jurisdiction of the treasurer, then the accounts payable section is under the joint control of the head of the accounting department and the treasurer. The relation of the treasurer to the receipt and disbursement of cash may be shown in diagram form, as shown in Illustration No. 128.

It is the purpose of such a diagram to indicate the following:

1. The sales department makes sales to customers which gives rise to accounts receivable.
2. The cashier receives cash from:
   - (a) Collections from accounts receivable;
   - (b) Sales of bonds or stocks;
   - (c) Bank loans;
   - (d) Miscellaneous sources, such as interest on bank loans, sale of fixed assets, and sale of securities.
3. The cashier deposits all cash in the bank.
4. All cash drawn out of the bank is by means of checks, which are prepared by the head of the accounts payable section and signed by the treasurer.
5. The head of the accounts payable section draws checks to pay:
   - (a) Accounts payable;
   - (b) Bank loans;
   - (c) Bonds or notes issued to others than banks;
   - (d) Petty cashier for disbursements made from petty cash fund;
   - (e) Miscellaneous, such as taxes, insurance, interest, and dividends.
6. The accounts payable arise as the result of purchases made for the purchasing, production, or operating departments.
7. The cashier and the head of the accounts payable section are under the control of the treasurer.

Handling the Cash Receipts

With the exception of the retail store, which receives a considerable amount of cash in payment of cash sales, the major receipts of cash are in payment of accounts receivable. The cash is received by the mailing department and is sent to the cashier at once. The cashier must see (a) that all cash received by him is deposited daily, and (b) that all parties interested in the cash receipts are notified of their amount and nature. The parties interested in the cash receipts are the following:

> 1. The General Ledger Accounting Section.—This section is responsible for the maintenance of the general financial records. It must have the information necessary for the preparation of its cash book record.
>
> 2. The Accounts Receivable Section.—This section is responsible for the maintenance of the accounts receivable ledger. It must know all payments made by customers that the credits to the customers' accounts can be made.
>
> 3. The Collection Department.—This department is responsible for collecting past due accounts. It must be informed of payments by customers that it may know when accounts turned over to it for collection are paid. Usually it is informed of all payments, and it checks off those which relate to the accounts which are past due.
>
> 4. The Treasurer.—He is responsible for the maintenance of the cash balance, and accordingly desires to know the daily cash receipts and disbursements. The cashier reports to him the daily cash receipts which are the same as the daily cash deposits, and the accounts payable section reports to him the daily cash disbursements.

The information desired by these parties is obtained in the following manner:

> 1. The cashier records all cash received on a loose-leaf record ruled in the form desired by the general ledger accounting section. At the end of the day, the sheets used during the day are sent to the general ledger accountant. He files these in a loose-leaf binder, and they constitute his cash record. Usually the cashier makes the record of cash received in duplicate and retains the duplicate for his record.
>
> 2. The cashier makes in duplicate a "settlement sheet" for each remittance received from a customer.

The following information is required on each settlement sheet:

(1) Date Remittance is Received.
(2) Customer's Name.
(3) Customer's Address.
(4) Date of Customer's Check.
(5) Number of Customer's Check.
(6) Amount of Customer's Check.
(7) Date of Each Invoice Paid.
(8) Amount of Each Invoice Paid.
(9) Date of Invoice on Which Customer Makes Deduction.
(10) Amount of Invoice on Which Customer Makes Deduction and Amount Deducted.
(11) Date of Invoice on Which Customer Makes Addition.
(12) Amount of Invoice on Which Customer Makes Addition.
(13) Total of Invoices Paid.
(14) Total of Deductions.
(15) Amount to be Credited to Customer.
(16) Cash Discount Taken.
(17) Amount to be Deposited in Bank.

The settlement sheet may be ruled as shown in Illustration No. 129.

The cashier will fill in the information indicated by the first six items. Wherever any of the other items of information indicated in the foregoing schedule are furnished by the customer, the cashier will also show them in the proper spaces on the settlement sheet. The cashier will balance the settlement sheets against the remittances received and send the settlement sheets in duplicate to the accounts receivable section.

The accounts receivable section will check the remittances as shown by the settlement sheets against the ledger accounts and will fill in the remaining information called for by the sheets. After the settlement sheets have been completed, the remittances made by the customers will be posted to their accounts from the original settlement sheets. If bookkeeping machines

SETTLEMENT SHEET

	Customer's Check
(1) Date........	(4) Date........
(2) Name........	(5) Number........
(3) Address........	(6) Amount........

	INVOICES PAID				INVOICE ON WHICH DEDUCTION IS MADE		
	(7) Date	(8) Amount	(7) Date	(8) Amount	(9) Date	(10) Amount of Invoice	Am't Deducted

(13) Total Invoices Paid........	
(14) Total Deductions........	
(15) Credit to Customer........	
(16) Cash Discount........	
(17) Deposit in Bank........	

ADDITIONS MADE		
(11) Date	(12) Amount	

Illustration No. 129—Settlement Sheet

are used for posting, the total of all the credits posted to the customers' accounts can be obtained from these machines when the posting is completed. This total can be checked against the total of the settlement sheets obtained by means of an adding machine recapitulation.

3. The accounts receivable section, after it has completed the settlement sheets, will send the duplicates to the collection department. From these sheets the collection department can check off the accounts which they are holding for collection.

4. The mailing department makes an unclassified list of all cash receipts turned over to the cashier. This list is sent to the treasurer. The cashier sends to the treasurer duplicates of the daily deposit slips. This enables the treasurer to know the total deposits for the day and to check deposits against receipts.

The foregoing procedure may be shown in diagram form, as in Illustration No. 130.

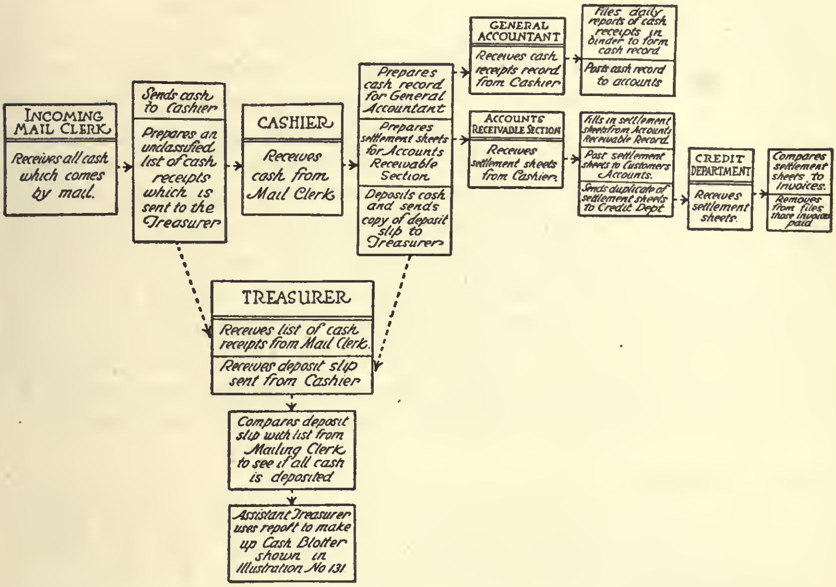

Illustration No. 130—Procedure for Handling Cash Receipts

In a retail business a considerable amount of cash is received by the sales clerks in payment of cash sales. This is sent to the cashier by means of a conveyor system. The daily cash receipts from sales are entered as a total on the record of cash receipts. No notice to the accounts receivable section or the collection department is necessary. Otherwise the procedure is the same as explained above in connection with cash received on account.

Handling the Cash Disbursements

The accounts payable section of the accounting department is responsible for initiating all cash payments. The student is familiar with the preparation, payment and record of vouchers payable. The accounts payable section enters all checks issued in a duplicate loose-leaf record of cash disbursements. The original of this record is transferred to the general ledger accountant and constitutes his record of cash disbursements from which he posts to the general ledger. The head of the accounts payable section reports to the treasurer the total of each day's disbursements.

Determination of Financial Requirements

The treasurer receives daily reports from the cashier and the head of the accounts payable section which show him the cash receipts and the cash disbursements for the day. But it is not sufficient for the treasurer to know what the receipts and disbursements *have been* for any particular time. He must anticipate what they *will be* and make plans which will provide for sufficient receipts to meet the disbursements. This necessitates that he prepare an estimate of cash receipts and an estimate of cash disbursements for a certain period of time and then formulate a financial program to take care of any excess of disbursements over receipts. It is beyond the province of this discussion to treat of the method of making such estimates or the formulation of such a program, but it is well to emphasize that these are among the most important duties of the treasurer and that the accounting records and reports should be designed to assist him as much as possible in their performance.

Financial Reports

The treasurer is usually responsible for the submission of reports to (a) stockholders, (b) directors, (c) creditors, and (d) governmental agencies.

The report that is given to the stockholders of a corporation is invariably general in its nature, because some of the matters concerning the activities of a company are obviously not public property, and because most of the stockholders want to know only the general financial condition of the firm and the results of its operations. Consequently the report to the stockholders usually consists of only a condensed Balance Sheet and an abbreviated Statement of Earnings. This report may be made by the treasurer directly to the stockholders, or it may be made by the president. If made by the president, it will include material supplied by the treasurer.

The report submitted to the board of directors is usually more comprehensive than that submitted to the stockholders. The directors can not make decisions in regard to the future financial policy of the corporation without knowing all the conditions at the present time. Consequently a detailed Balance Sheet and Statement of Profit and Loss are submitted, and these are supplemented by explanations of such phases of the reports as are of particular interest and importance. The report to the directors may be submitted by the treasurer or the president. In the latter case, the treasurer's data is included in the report of the president.

The reports to creditors consist of the standard Balance Sheet and the standard Statement of Profit and Loss. Sometimes additional information with reference to past earnings, capitalization and similar matters are requested by creditors. If this information is requested, it is submitted as supplemental to the Balance Sheet and Statement of Profit and Loss.

The principal reports to governmental units are those relating to taxation. The income tax report required by the national government is submitted on a form prescribed by the government. The states which impose an income tax have special forms for reporting income. In addition to the reports required for taxation purposes, most states require all corporations to submit periodical reports, giving certain information which is prescribed by the law or by the regulations of the state agency in which supervision of corporations is vested. The laws of the different states vary so much that it is not worth while to illustrate the reports used for this purpose.

Reports to the Treasurer

The treasurer, as one of the principal executives of the company, receives the periodical statements which are received by the other executives. These include summary reports on sales and production, such as are shown in previous chapters. In addition to these general periodical reports, the treasurer receives from the cashier and the head of the accounts payable section the daily reports on cash receipts and cash disbursements which have been previously explained. Sometimes the treasurer has prepared for his use a "daily cash blotter" made in the form shown in Illustration No. 131.

The value of this report to the treasurer is evident. The bank balances show him the amount of the cash balance of the company and where it is deposited. The comparison of bank loans in each bank with the bank balances show him the bank balances which may be decreased without decreasing the loans. Banks require that the bank balances bear a certain ratio to the loans made at the bank. This comparison also shows the banks at which the bank balances will warrant an increase of loans if this is necessary. The section which affords comparative figures with reference to accounts receivable is useful in indicating the efficiency of the credit and collection departments and affords a basis for estimating future receipts from accounts receivable. The section which shows comparative figures on accounts payable indicates the promptness with which the business is meeting its obligations and affords a basis for estimating disbursements for accounts payable outstanding.

DAILY CASH BLOTTER

A. Bank Balances and Bank Loans

Bank	Balance At Opening of Day	Deposits	Withdrawals	Balance At End of Day	Loans	% Balance To Loans	% Bal. to Loans Preceding Day

B. Accounts Receivable and Payable

Accts. Rec Outs'ding. Day Preceding	Collection Today	% Coll. to Receivables Today	Av. of Coll. to Receivables Past Year	Shipments During Day	Balance at End of Day	Accounts Payable Preceding Day	Payments	Purchases	Balance End of Day	Due During Following Week

Illustration No. 131—Daily Cash Blotter

QUESTIONS FOR CLASS DISCUSSION

1

The president of the National Manufacturing Company has been acting as the treasurer of the company. He desires to appoint a treasurer who will have complete control of the financial department. What duties will the president place upon this new officer of the company?

2

The new treasurer finds that cash is received and disbursed by the head bookkeeper and that payments sometimes are made without authorization by anyone other than the bookkeeper. The treasurer is not satisfied with this system and decides to organize the financial department so that complete control may be exercised over receipts and disbursements. Outline the steps that must be taken to effect such an organization.

3

The general accounting section, the accounts receivable section, the collection section, and the treasurer are all concerned with the amount of cash received daily. Explain the purposes for which each uses this information.

4

Explain the purpose and contents of the settlement sheet.

5

Compare the procedures for handling cash receipts in a manufacturing business with the same procedure in a retail department store.

6

Trace the course of an invoice payable from the time of its approval by the purchasing agent until its final disposition. Explain all entries which will be made in connection with it.

7

"It is not sufficient for the treasurer to know what the receipts and disbursements have been for any particular time." Why not? What more is required?

8

The treasurer exercises control over disbursements by check, since his signature is required on each check issued. In what way may he exercise a similar control over petty cash disbursements?

9

What is the authority of the treasurer with reference to short-time loans incurred at banks?

10

The president of the X Company desires to obtain the deeds to the property of the company. From whom would he obtain these?

11

You are a bond salesman. You understand that the X Company desires to invest some of its excess funds. How would you proceed to interest the X Company?

12

Explain the nature and purpose of each of the financial reports which are customarily prepared by the treasurer.

13

Explain the contents and purpose of the treasurer's daily cash blotter.

LABORATORY MATERIAL

Exercise No. 186

The president of the Superior Manufacturing Company is dissatisfied with the present method of handling cash receipts and disbursements for his company. He asks you to outline a procedure which you deem desirable for the needs of the company. Upon investigation of the organization and operating methods of the company you determine the following:

1. The treasurer is the head of the financial and accounting departments of the business. He has as assistants the following:
   - (a) Credit manager in charge of credits and collections.
   - (b) Cashier in charge of the receipt and deposit of cash.
   - (c) General auditor in charge of the accounting.
2. In the accounting department there are the following sections:
   - (a) General office accounting section.
   - (b) Accounts payable section
   - (c) Accounts receivable section.
   - (d) Cost accounting section.
   - (e) Branch house accounting section.
3. The company has ten branches which are responsible for the marketing of its product. The branches invoice their customers and make collections. They pay all expenses and such incidental purchases as they make in order to obtain materials to fill rush orders. You estimate that the cash requirements of each branch are about $20,000.00 a month.

Instructions: Write a report to the president covering the following:

1. Procedure and forms for the handling of cash receipts of the general office.
2. Procedure and forms for the handling of cash disbursements of the general office.
3. Procedure and forms for the handling of branch cash

Make your recommendations sufficiently comprehensive that the employes of the company can place the procedure you recommend in force from the instructions contained in your report.

Exercise No. 187

The bookkeeper of the Torr Manufacturing Company is unable to obtain his Trial Balance. You are requested by the treasurer to determine the cause for his difficulty. Upon investigation you discover the following errors:

1. The accounts receivable column on the debit side of the cash book is underfooted by $200.00.
2. The total of the Sales Discount column amounting to $1,680.00 has been posted to the credit of the Sales Discount account, and the total of the Purchases Discount column amounting to $2,780.00 has been posted to the debit of the Purchases Discount account.
3. The balance of cash on hand at the beginning of the month was $6,400.00, and this has been included in the total of the cash receipts column and posted to the debit of the Cash account.
4. A check for $200.00 drawn in payment of an invoice has been entered as a collection on the debit side of the cash book and posted to the credit of Accounts Receivable.
5. Cash sales for $1,200.00 have been entered in both the sales record and the cash book. They have been credited to Sales from each record, but the debit on the sales record has not been posted.
6. Goods returned by customers amounting to $2,000.00 have been entered as purchases and posted accordingly.

Instructions: Draft journal entries to correct the foregoing errors.

Exercise No. 188

The Davies Manufacturing Company has an outstanding capital stock of $2,000,000.00, one-half of which is 6% cumulative preferred and one-half common. The by-laws require that upon the payment of a dividend to the common stockholders a reserve shall be set up equal to 10% of the dividend, and that after the common stockholders receive a dividend equal to that paid to preferred stockholders ,one-half of the remaining surplus shall be carried to the reserve until it amounts to $250,000.00.

On December 31, 1919, the Surplus account shows a debit balance of $200,000.00. Accordingly the preferred dividends for the year are passed. The Statement of Profit and Loss for 1920 shows a net income for the year of $540,000.00.

Instructions: Draft journal entries to show disposition of profit for 1920, assuming that dividends to both preferred and common stockholders are declared but not yet paid.

Exercise No. 189

Meade & Company sold to Marshall & Lyon merchandise invoiced at $3,000.00, terms 2/10, n/30. Marshall & Lyon did not take advantage of the discount, but at the end of the thirty days offered in settlement cash $1,000.00 and two notes for $1,000.00 each, payable in sixty and ninety days respectively. The notes bear interest at 6%. Meade & Company accept this settlement. At the end of thirty days they discount the notes at the First National Bank at 6%.

Marshall & Lyon pay the sixty-day note at maturity. At the maturity of the ninety-day note they offer Meade & Company a new thirty-day note with interest at 6% for $500.00, and a check for the balance of the $1,000.00 note plus interest, and request them to take up the $1,000.00 note at the bank.

Meade & Company agree to this and take up the ninety-day note. They immediately discount the $500.00 note at the First National Bank, rate of discount 6%. Marshall & Lyon pay the thirty-day note at maturity.

Instructions: Make the journal entries to show the effect of the foregoing transactions on the records of Meade & Company.

CHAPTER LXVI

ACCOUNTING FOR INVESTMENTS

Meaning and Purpose of Investments

Every business enterprise is organized to carry on certain operations with the expectation of obtaining profits as a result of these operations. To accomplish this end it is necessary that capital be available and that this capital be in the form most serviceable to the specific business. For example, capital may be invested in land, buildings, and equipment, which are used in the operations which the business performs. Some capital must be in the form of cash, and usually there will be a considerable amount represented by accounts and notes receivable and merchandise inventory.

In a properly managed business the capital will be distributed among these various assets in accordance with its needs. Care will be taken to avoid the possession of too large a quantity of some assets and too small a quantity of others. For instance, money which is needed to liquidate current liabilities will not be tied up in land, buildings, and equipment. Merchandise and materials will not be purchased beyond the variable needs of the business. To secure the proper use of the funds of a business is one of the most important functions of its management.

If a business is prosperous, profits will be made and the capital of the business will be increased thereby. From the profits, dividends will be declared, and capital, usually in the form of cash, will be used in their payment. Conservative management dictates that the profits in excess of a reasonable return on the investment of the stockholders be retained in the business. In most cases these profits are used in the expansion of the business. In some cases it may not be profitable to expand further, and it is necessary to use the funds derived from the profits in some other manner. Consequently they are used to acquire various forms of assets which are termed *investments.* These consist of stocks and bonds of other companies or land and buildings not needed in the conduct of the business.

In the purchasing of investments care should be exercised to secure those which will have three qualities: (a) security; (b) salability; and (c) a fair rate of income. It is evident that it is unwise for a business organized for non-speculative purposes to risk its surplus funds in uncertain enterprises. The funds are retained in the business in order that they may be available for future use when business needs may require them; consequently they must not be dissipated in speculation. Since it is anticipated that these funds may be needed in the future operations of the business, it is desirable that they be placed in investments which can be readily sold at any time the funds may be needed. High-grade stocks and bonds can be sold on the Stock Exchange at any time. Of course their market value will fluctuate to some extent. Finally, the business retains profits in the business which would otherwise be distributed to the stockholders with the consequent opportunity on their part of investing them profitably. It is incumbent upon the business, therefore, to use these funds so that they will result in a profit to the stockholders. In short, they should be invested so as to earn as high an income as possible, consistent with the safety of the principal.

In the foregoing discussion it has been assumed that stocks and bonds are purchased as a means of securing a profitable investment for surplus funds. This is usually true in the case of bonds, but stocks are often purchased not for the primary purpose of the income to be derived from them, but to exercise some control over the operations of the company whose stock is purchased. For instance, a publishing company may purchase the stock of a printing company so it may exercise sufficient control of the latter to be treated as a preferred customer and obtain the execution of its printing contracts at any time. A company manufacturing machine tools may purchase the stock of a foundry in order to insure itself of a continuous supply of good castings. In other cases a company may purchase a controlling interest in the stock of one or more competitors in order to control their prices and thereby eliminate competition. In the case of real estate, it may be purchased when it is not needed for present use because it is expected that it will be needed in the future, and it is feared it may be unobtainable at that time. During the past few years many firms have purchased United States bonds not because they desired them as an investment, but for patriotic reasons. These bonds appear on the Balance Sheets of many companies which have no other investments. Trust companies, insurance companies, and similar institutions receive a large part of their income from their investments in stocks and bonds. The state laws usually restrict the investment of the funds of such institutions to certain kinds of securities.

The foregoing are the usual reasons for a business investing its funds in stocks, bonds, and excess fixed assets. There are other special cases when such investments are made, but it is not thought expedient to discuss these here.

Classification of Investments

For the purpose of the present discussion investments may be classified as follows:

(a) Stocks.
(b) Bonds.
(c) Land and Buildings.

The method of accounting for each of these will be discussed in order.

Accounting for Stocks

Stocks, regardless of the purpose for which purchased, should be recorded at the time of purchase at the cost price. The cost includes the purchase price plus brokerage fees and any other expense incurred incident to their purchase. In the case of a mercantile business stocks are usually carried at cost regardless of the market price. If the market price is higher than cost, it is not proper to show the increase in value in the accounts, for this would result in the showing of a profit which has not been realized and may never be realized, since the stocks may decline in value before they are sold. If the market price is below cost, it is not necessary to show this decrease in market value and the consequent loss in the accounts if the decrease is deemed to be temporary and is not large in amount. If the decrease is regarded as permanent or is of large amount, it is desirable to write down the book value of the stock and show the loss resulting therefrom or to set up a reserve for the anticipated loss. Slight or temporary fluctuations may be ignored in the accounts, but shown in the Balance Sheet by inserting the market value in brackets immediately after the title of the asset. In a business dealing in stocks, like a brokerage firm, it is customary to inventory those on hand at the end of the fiscal period, basing the valuation on the cost or market price, whichever is the lower.

If stocks of various businesses are owned, separate accounts should be kept for the stocks of each company. In the case of large holdings of stock, it is desirable to have a subsidiary ledger which will contain particulars with reference to the different classes of stock, and will support the controlling account on the general ledger. This method is but a further application of the modern tendency of making the ledger consist largely of controlling accounts.

The profits of a company are not subject to the control of its stockholders until dividends have been declared by the board of directors. It is customary, therefore, for the company holding stock not to take into consideration the earnings of the company which the stock represents until dividends have been declared. After dividends are declared, they become a liability of the company declaring them, and therefore can be considered as an asset by the stockholders of the company. If some time elapses between the declaration of the dividend and its payment, a holder of the stock of the company may enter the dividend as an asset on its records.

To illustrate: the X Corporation purchases $100,000.00 of the seven per cent cumulative preferred stock of the Y Corporation. The directors of the Y Corporation declare a dividend of seven per cent on January 15th, payable on March 1st. The X Corporation, upon the receipt of the notice of the declaration of the dividend will make the following entry:

Dividends Receivable, Y Corporation	$7,000.00	
Income from Dividends, Y Corporation		$7,000.00

When the dividends are paid and the cash received by the X Corporation, the following entry will be made:

Cash	$7,000.00	
Dividends Receivable, Y Corporation		$7,000.00

If the dividends are paid as soon as declared, the X Corporation will make but one entry by which it will debit "Cash" and credit "Income from Dividends, Y Corporation."

If one corporation owns a controlling interest in another, it may be justified in taking on its books its share of the profits of the latter as soon as they are earned on the theory that, since it owns a controlling interest, it may secure a distribution of those profits when it desires. It is a more conservative practice, however, not to enter the profits on the records until their distribution has been directed by a declaration of dividends.

There is not unanimity of opinion as to the classification on the Balance Sheet of stocks owned. It is sometimes contended that, if the stocks are readily salable, they may be shown as current assets on the theory that they may be easily converted into cash. It is thought better, however, to restrict current assets to those which not only *may*, but *will*, in the normal course of business, be converted into cash. Since there is no assurance that stocks will be sold, it is a better plan to show them under the separate heading of "Investments" with a sufficient description to indicate their nature. For instance, on the Balance Sheet of the X Corporation the investments in the Y Corporation will be shown as follows:

INVESTMENTS:
Y Corporation, 7% Cumulative Preferred Stock $7,000.00

Accounting for Bonds

From the viewpoint of accounting, bonds may be divided into two general classes: (1) those which are purchased as a means of investing temporarily surplus funds, with the expectation that they will be sold within a limited time after their purchase; (2) those which are purchased for long-time investments and which it is intended to retain until their maturity.

The first class should be recorded at cost price in the same manner as stocks. This cost will include the purchase price plus the charges incurred incident to their purchase, such as brokerage fees, stamp tax, and so forth. When the bonds are sold, the Bond account will be credited with their selling price and the balance of the account will show the net profit or loss on the transaction.

In recording the second class of bonds a different procedure is necessary. They are not purchased for resale, but to retain until their maturity. Bonds call for the payment of a fixed amount of money at maturity. This amount is known as their *par value*. Since the par value is the amount to be realized at maturity, it is necessary that the bonds appear at this amount in the accounts at that time.

Bonds may be purchased at par; above par, when they are said to be bought at a premium; or below par, when they are said to be bought at a discount. Since they must appear in the accounts at par at the time of maturity, the question arises as to the disposition of the premium when they are purchased above par or with the discount when they are purchased below par. A bond for

$1,000.00, payable twenty years hence, if purchased at $1,100.00, will only produce $1,000.00 at maturity. The premium of $100.00 will be lost. On the other hand, the same bond purchased for $900.00 will produce $1,000.00 at maturity, and there will be a gain of $100.00. In the case of the bond purchased at a premium, if no steps are taken to prevent, upon maturity $100.00 will be charged to the Profit and Loss account. In the opposite case, $100.00 will be credited to Profit and Loss. The better practice in both these instances dictates spreading either the discount or premium over the remaining life of the bond. The method by which this is done may be shown best by means of an illustration.

The Brown Corporation purchases one hundred ten-year 5% bonds of the Smith Company at $90.00 each. Since the bonds have a par value of $100.00 and the Smith Company is regarded as thoroughly solvent and reliable, the question arises as to why the bonds may be purchased at $90.00 each. Investigation shows that the current rate of interest is 6%, while the bonds bear only 5% interest; consequently, the bonds sell for only $90.00, since it is estimated that at this price approximately the same return will be obtained on the investment as if $100.00 was paid for bonds bearing 6% interest. The following calculations will show the basis for this conclusion:

(a) If the 5% bonds are purchased at $90.00 each:

OUTLAY:	
100 bonds at $90.00	$ 9,000.00
RECEIPTS:	
Yearly interest—$500.00 for 10 years .	$ 5,000.00
Received in payment of bond at maturity	10,000.00
EXCESS OF RECEIPTS OVER OUTLAY	$ 6,000.00

(b) If the same bonds bearing 6% interest were purchased at par value of $100.00 each:

OUTLAY:	
100 bonds at $100.00	$10,000.00
RECEIPTS:	
Yearly interest—$600.00 for 10 years .	$ 6,000.00
Received in payment of bond at maturity	10,000.00
*EXCESS OF RECEIPTS OVER OUTLAY	$ 6,000.00

* In this illustration the question of compound interest is ignored, since the purpose is to illustrate the principles involved rather than calculations by which exact results are obtained. In practice, bond tables are frequently used in determining the value of bonds at various rates of interest.

It can be seen from the foregoing illustration that the Brown Corporation is willing to take less interest each year on the bonds bought at a discount because it expects to receive an excess over the cost price at the maturity of the bonds. In both cases, however, the total amount received as a result of the investment is the same, and it seems desirable that these receipts be distributed evenly over the life of the bonds rather than show a profit of $1,000.00 for the year of their maturity. This may be accomplished by the following procedure:

When the bonds are purchased, the following entry is made:

Bonds, Smith Co., 10-Year, 5%	$10,000.00	
Cash		$9,000.00
Discount on Bonds		1,000.00

Each year when the $500.00 cash is received, the following entry is made:

Cash	$500.00	
Discount on Bonds	100.00	
Bond Interest Earned		$600.00

By this method the accounts will show each year an earning of $600.00, and at the end of ten years the discount on bonds will have been written off and the bonds will appear in the accounts at their par value of $10,000. When payment is received, Cash should be debited for $10,000.00 and Bonds credited. On the Balance Sheets made during the life of the bonds, the par value of the bonds may be shown with the discount subtracted therefrom and the net amount extended in the asset column.

When bonds are purchased at a premium, exactly the reverse condition to that illustrated in the foregoing discussion exists. For instance, if the bonds of the Smith Company bear interest at 7%, they may sell at $110.00 each. In this case the purchaser will receive a high rate of interest each year, but will receive $1,000.00 less than the cost of the bonds at the date of maturity. This difference between the purchase price and the amount received in payment should not be shown as a loss of the year when the bonds mature, but should be deducted from the interest received each year. The entries for recording and disposing of the premium paid in the foregoing illustration are as follows:

At the time of purchase the following entry will be made:

Bonds, Smith Co., 10-Year, 5%	$10,000.00	
Premium on Bonds	1,000.00	
Cash		$11,000.00

When the interest is received each year, it will be recorded as follows:

Cash	$700.00	
Premium on Bonds		$100.00
Bond Interest Earned		600.00

By this means the true earning on the investment will be shown each year, and at the end of ten years the Premium account will have been written off and the bonds will appear at par, which is the amount that will be received in payment for them. On the Balance Sheets made during the life of the bonds the par value of the bonds should be shown with the premium added and the total carried into the asset column.

It is desired to emphasize again that the figures used in the foregoing illustrations are only approximately correct. It is not desired to complicate the principles involved by the introduction of the calculations which would result from the use of bond tables showing the exact figures. The student will notice one apparent result from using the approximate instead of the exact figures, since, when the bonds are purchased at a discount, only $9,000.00 is invested, whereas when they are purchased at a premium, $11,000.00 is invested. Yet the earnings are the same in each case. If exact figures were used, the earnings would be smaller for the smaller investment.

Some business firms use the approximate figures such as are used in these illustrations, instead of using the more exact figures obtained from the bond tables.

The market price of bonds held as a permanent investment is not recognized in the accounts. Since they are not to be sold, the market has no effect on their value to the firm. On the Balance Sheet the market price may be shown by being written in brackets immediately after the title of the account.

The foregoing statements are based on the assumption that there is no doubt of the solvency of the issuing company and consequently no doubt of the payment of the bonds at maturity. It will be understood that if the market price is below the book value, as the result of the financial condition of the issuing company, this may necessitate the changing of the book value of the bonds or the setting up of a reserve to provide for a probable loss on them because of a failure of the company to pay in full. Since bonds are usually secured by a lien on the property of the issuing company, they will usually be paid in full even though the company becomes insolvent.

If bonds of different companies are held, a separate account should be kept with the bonds of each, and they should be shown as separate items on the Balance Sheet. Bonds held for permanent investment, like bonds held for temporary purposes, are shown under the title of "Investments" with a sufficient description to indicate clearly their nature. This description should correspond with that shown in the foregoing entries.

Premium and Discount on Bonds Issued

The foregoing discussion has explained the method of handling premium and discount on bonds purchased and held as an investment. On the records of the company issuing the bonds, entries are made which are just the reverse of those made on the records of the purchaser. If the Smith Company issues one hundred ten-year 5% bonds to the Brown Corporation at $90.00, the entries on the record of the former will be:

Cash	$9,000.00	
Discount on Bonds	1,000.00	
Bonds Payable (10-Year, 5%)		$10,000.00

At the time of paying the yearly interest the following entry will be made:

Bond Interest Paid	$600.00	
Cash		$500.00
Discount on Bonds		100.00

By this procedure the discount on bonds will be written off over the life of the bonds, and each fiscal year will bear its share of the discount. On the Balance Sheet prepared during the life of the bonds, the balance of the account with Discount on Bonds will be shown as a deferred charge to expense.

If the Smith Company issues one hundred bonds bearing interest at 7%, and sells them for $110.00 each, the entry at the time of sale will be:

Cash	$11,000.00	
Bonds Payable, 7%, 10-Year .		$10,000.00
Premium on Bonds . . .		1,000.00

At each interest date the entry will be:

Bond Interest Paid	$600.00	
Premium on Bonds	100.00	
Cash		$700.00

By this procedure the premium on bonds will be written off over the life of the bonds, and each fiscal year will receive the benefit of its proper share of the premium. On the Balance Sheets prepared during the life of the bonds, the balance of the account with Premium on Bonds will be shown as a deferred credit to income.

In the foregoing illustrations the factor of compound interest has been disregarded in the same manner and for the same reason as in the discussion of the treatment of premium and discount on bonds purchased.

Accrued Interest on Bonds

At the time bonds are purchased, there may be interest accrued on them which is not yet due and the purchaser may be charged for this. To illustrate, a 6% bond with interest payable yearly on December 31st may be purchased at its par value of $1,000.00 on June 30th. One-half of a year's interest, amounting to $30.00, is accrued at this time. The purchaser, therefore, will be required to pay $1,030.00 for the bond. He will enter the purchase as follows:

6% Equipment Bond, Penn. R. R.	$1,000.00	
Accrued Interest on Bonds . . .	30.00	
Cash		$1,030.00

At the end of the year the purchaser will receive $60.00 interest, and he will record this as follows:

Cash	$60.00	
Accrued Interest on Bonds . . .		$30.00
Interest Earned on Bonds		30.00

This shows that one-half of the amount received is an earning of the year and the remainder is a return of the capital invested when the bond was purchased.

If the date of payment of interest does not coincide with the closing date of the fiscal period, there will be accrued interest on bonds at the end of the fiscal period which must be shown as an asset on the Balance Sheet and as income earned on the Statement of Profit and Loss. The method of recording accrued interest in the accounts is explained in Chapter LXVII.

Investment in Fixed Assets

It is rather unusual for a business to purchase fixed assets, such as land and buildings, which are in excess of its needs. Land is purchased under these circumstances more often than any other fixed asset, since it may be desired to hold it for future use when it is anticipated it will be needed because of contemplated expansion. Sometimes land and buildings are purchased because it is thought they will increase in value, and a profit can be made from their later sale. If income-producing property is purchased, no particular difficulties arise in accounting for it. It is recorded at cost and carried at cost less depreciation. All expenses incurred in connection with it are segregated in separate expense accounts, and all income derived from it is shown in separate income accounts. At the end of each fiscal period a summary of the expenses and income is made to determine the net profit or loss for the period. This is shown on the Statement of Profit and Loss under the heading of "Other Income" if a profit, or under the heading of "Deductions from Income" if a loss.

If property, such as land, is purchased which is non-income-producing, there arises the problem of properly showing the charges incurred incident to its ownership. Taxes must be paid in any case and other charges may be incurred. It is usually regarded as proper to add these charges to the original cost of the land on the theory that the management must have considered these at the time the land was purchased and determined that a saving would be effected by purchasing it and paying these rather than to wait until it was needed and pay the market price at that time. The judgment of the management may have been incorrect, however, and it is not proper to increase the value of the asset far above its value because of this incorrect judgment. Discretion should be used in the application of any general principle, and, in case of doubt, it is wise to err on the side of conservatism. In pursuance of this policy it may be better in some cases to show carrying charges on non-income-producing land as a debit to Profit and Loss or as a deferred charge to be spread over the years when the land becomes productive. If they are charged to Profit and Loss, they must be treated as a non-operating expense so as not to effect the showing of net profit from the regular operations of the business.

QUESTIONS FOR CLASS DISCUSSION

1

The X Corporation has just been organized. Capital stock to the amount of $300,000.00 has been sold for cash. What factors should the company consider in investing these funds?

2

The earnings of the X Corporation during the third year of its operations are $60,000.00. Some of the directors desire to distribute all these earnings in dividends. What do you think of this policy?

3

If the X Corporation retains some of its earnings in the business, what disposition may it make of them?

4

The Brown Manufacturing Company uses high-grade steel castings in the manufacture of its product. It has purchased these castings during the past few years from the King Foundry Company. Recently a competitor of the Brown Company has been purchasing a considerable part of the product of the King Foundry Company which has caused the Brown Company some inconvenience in securing castings at the time they are desired. What procedure may the Brown Company follow to insure itself a satisfactory supply of castings in the future?

5

The A Corporation on January 1, 1919, purchases, for $80,000.00, stock of the B Corporation, which has a par value of $90,000.00. It pays brokerage fees of $100.00. Explain how this purchase should be recorded.

6

On December 31, 1919, the market price of this stock is $85,000.00. How would you treat this increase in market price in closing the books on this date?

7

The president of the A Corporation insists that the increase in market value of the stock is of importance to the bank and merchandise creditors of the firm and should be shown in the accounts and on the Balance Sheet. How would you answer him?

8

During the year 1919 the B Corporation earns large profits, as shown by their Statement of Profit and Loss, which they send to the stockholders. On January 10, 1920, the president of the A Corporation presents this Statement of Profit and Loss to his accountant and suggests that, as the A Corporation owns one-tenth of the stock of the B Corporation, it is entitled to show in its records one-tenth of the year's profits of that company. The accountant maintains that since the B Corporation has not declared a dividend, the A Corporation can not show any of the profits of the former in its records. What is your opinion?

9

On February 1, 1921, the board of directors of the B Corporation declares a six per cent dividend, payable on March 1, 1921. Explain the entries to be made on the records of the A Corporation on February 1, 1921, and on March 1, 1921.

10

The Rose Manufacturing Company invests surplus funds in the bonds of the Hydrex Corporation, which it plans to sell as soon as these funds are needed in the development of the business. Explain (a) how these bonds should be recorded at the time of purchase; (b) how they should be carried in the accounts while they are owned; and (c) the method of recording them when sold.

11

The Curry Corporation purchases the twenty-year 5½% bonds of the Lewis Manufacturing Company. It plans to retain these bonds until maturity. The par value of the bonds is $10,000.00, and they are purchased for $9,000.00. Explain the entries to be made on the books of the Curry Corporation (a) when the bonds are purchased; (b) when the yearly interest is received; (c) when the bonds are paid.

12

Two years later the Curry Company purchases the twenty-year 6½% bonds of the Baker Publishing Company. It plans to retain these until maturity. The par value of the bonds is $10,000.00, and they are purchased for $11,000.00. Explain the entries to be made on the records of the Curry Corporation (a) when the bonds are purchased; (b) when the yearly interest is paid; (c) when payment for the bonds is received.

13

Explain the entries to be made on the records of the Lewis Manufacturing Company in connection with the bonds referred to in Question 11 (a) when the bonds are issued; (b) when the yearly interest is paid; (c) when the bonds are paid.

14

Explain the entries to be made on the records of the Baker Publishing Company in connection with the bonds referred to in Question 12, (a) when the bonds are issued; (b) when the yearly interest is paid; (c) when the bonds are paid.

15

Explain how the bonds of the Lewis Manufacturing Company will be shown on the Balance Sheet of the Curry Corporation three years after their purchase. Explain how these bonds will be shown on the Balance Sheet of the Lewis Manufacturing Company on the same date.

LABORATORY MATERIAL

Exercise No. 190

The Trial Balance of the Hodge Corporation on December 31, 1920, is as follows:

Cash	$ 6,000.00	
Notes Receivable	3,000.00	
Accounts Receivable	30,000.00	
Reserve for Bad Debts		$ 1,000.00
Bonds, X Corporation, 20-Year, 5%	4,000.00	
King Motor Company, 6% Cumulative Preferred Stock	2,800.00	
Bonds, Y Corporation, 10-Year, 7%	8,000.00	
Premium on Y Corporation Bonds	900.00	
Discount on X Corporation Bonds		620.00
Furniture and Fixtures	200.00	
Reserve for Depreciation on Furniture and Fixtures		600.00
Buildings	32,000.00	
Reserve for Depreciation of Buildings		1,800.00
Land	24,000.00	
Notes Payable		4,000.00
Accounts Payable		8,000.00
Bonds Payable, 20-Year, 7%		30,000.00
Premium on Bonds		2,100.00
Capital Stock, 7% Cumulative Preferred		50,000.00
Surplus		7,180.00
Sales		65,200.00
Purchases	50,000.00	
Operating Expenses (total of all accounts)	10,000.00	
Non-Operating Income		1,200.00
Non-Operating Expense	800.00	
	$171,700.00	$171,700.00

From an inspection of the accounting records and supporting documents, the following data is obtained:

1. Accrued interest on notes receivable, $60.00.
2. Estimated loss on bad debts, 1% of accounts receivable outstanding.
3. The bonds of the X Corporation were purchased for $3,200.00 five years previous to this date. The interest payable semi-annually on December 31st and

June 30th. That for December 31, 1920, has been received but not yet entered.

4. The stock of the King Motor Company has a par value of $3,000.00. The present market value is $2,900.00. It appears on the books at cost. The fiscal year of the King Motor Company ends on November 30th. The board of directors on December 20th declared the regular dividend on preferred stock, payable on February 1st. The Hodge Corporation is notified of the declaration of the dividend on this date.

5. The bonds of the Y Corporation were purchased January 1, 1919, for $9,000.00. The interest is payable annually. The interest for the current year has not yet been received.

6. The yearly depreciation on furniture and fixtures is 10% and on buildings is 3%.

7. Accrued interest on notes payable, $100.00.

8. Accrued wages, $240.00; accrued taxes, $180.00.

9. The bonds were sold ten years ago this date at a premium of $4,000.00. The interest is payable semi-annually, and that for the half year ending on this date has not yet been entered.

10. The inventory on December 31st is $20,000.00. Inventory at beginning of the year was $15,000.00, and is shown as a debit to Purchases account.

Instructions: 1. Make the journal entries to record the foregoing adjustments. 2. Prepare a Balance Sheet and a Statement of Profit and Loss. 3. Prepare the journal entries to close the accounts.

Exercise No. 191

The United States Bond Holding Company performed, among others, the following transactions during the year 1920:

Jan. 1. Issued twenty-year 5% bonds having a par value of $200,000.00. Bonds sold for $190,000.00. Interest is payable semi-annually.

20. Purchased $8,000.00 of the 7% cumulative preferred stock of the X Corporation for $7,800.00. Brokerage fees, $10.00.

30. Purchased $2,000.00 of the twenty-year 6% bonds of the King Corporation from the Brown Manufacturing Company for $1,900.00. These were purchased largely to

accommodate the Brown Corporation, and it is expected that they will be sold soon. Interest on the bonds is payable yearly on August 31st. The purchase price of $1,900.00 included accrued interest.

Mar. 31. Purchased $5,000.00 of the twenty-year 6% bonds of the Jones Manufacturing Company at par plus accrued interest. The interest is payable semi-annually December 31st and June 30th.

June 30. Paid interest on bonds issued on January 1st. Received semi-annual interest on the bonds of the Jones Manufacturing Company, purchased on March 31st.

Aug. 31. Received yearly interest on bonds of the King Corporation, which were purchased on January 30th.

Sept. 30. Sold bonds of the King Corporation at par value. No charge is made for the accrued interest.

Dec. 31. Paid interest on bonds issued on January 1st. Received semi-annual interest on the bonds of the Jones Manufacturing Company, purchased on March 31st.

Instructions: Make the journal entries to record the foregoing transactions.

Exercise No. 192

The Griffin Manufacturing Company purchases certain lots adjoining its manufacturing plant, together with the building which is situated on them. It contemplates that it will need these lots on which to extend its plant within two or three years and desires to obtain them now in order to prevent their purchase by someone from whom they may be unable to obtain them when they are desired. The company plans to tear down the building when the lots are needed.

The lots and buildings cost $6,000.00, and it is estimated that the building is worth $5,000.00. The building is rented for a warehouse at $400.00 a year. The taxes, insurance, and warehouse charges on the land and building are $100.00 a year. The building is depreciating at the rate of $200.00 a year.

At the end of the third year it is decided to tear down the building. It costs $200.00 to tear it down, and the estimated value of the scrap which can be used in the construction of the new building is $800.00. Unusable scrap is sold for $300.00.

Instructions: 1. Make the journal entries to record the foregoing.

2. Explain how the results of the operation of the building will be shown on the Statement of Profit and Loss.

CHAPTER LXVII

THE PERIODICAL SUMMARY

Purpose of the Periodical Summary

In the preceding chapters considerable attention has been given to the preparation and interpretation of financial reports for the use of the executives of a business. Although these reports may be made in various forms, they all can be classified as one of two kinds: (a) those which show the financial condition of the business at a specific time, and (b) those which show the results of the operations of the business for a specific period of time. To make possible the preparation of these reports it is necessary to divide the life of the business into certain periods of time, known as *fiscal periods*, and to make the records from which the reports are prepared show this division. This necessitates that at the end of each fiscal period the records be adjusted to show the true financial condition of the business at that time, and that a summary of the period's operations be made in such form as to separate these operations from those of the next period.

Periodical Adjustment of the Accounts

At the end of any fiscal period there are always facts concerning the financial status of the business which have not been recorded in the ledger accounts, but which must, nevertheless, be considered if the financial reports are to be complete and accurate in their showing. Thus some of the assets may be worth less than the value at which they appear on the books. There may be certain items which really exist as assets of the business, but which have not been entered on the books, since no transaction has arisen to cause such entries to be made. In the same way, liabilities may have arisen which have not yet been represented by a voucher and which have, therefore, not been recorded. Income may have been earned or expense incurred without giving rise to an entry; or there may be items standing on the books as expense which are not properly chargeable against the earnings of the current fiscal period. Sometimes, also, credits are entered on the books for income which are not properly to be considered as an earning of the current fiscal period.

A correct statement of the financial condition and the result of the operations of the period requires that such facts, so far as they can be ascertained, be recognized and recorded. The items of this kind which must usually be considered may be classified as follows: (1) loss on bad debts; (2) depreciation on fixed assets; (3) accrued income; (4) accrued expense; (5) deferred charges to expense; (6) deferred credits to income.

It is assumed that the student is to some extent familiar with the nature of these items and the method of recording them. Their proper record is regarded as of sufficient importance, however, to be worthy of a brief review.

Loss on Bad Debts

The estimated loss on bad debts is shown on the Balance Sheet as a deduction from Accounts Receivable. It is shown on the Statement of Profit and Loss as an administrative expense. It is recorded by means of a journal entry which debits Loss on Bad Debts and credits Reserve for Bad Debts. In estimating the amount of the reserve for bad debts, resort must be had to the statistics of previous periods. Two methods may be followed in making this estimate. By the first method, the ratio of the bad debts of previous periods to the sales of these periods is obtained, and this ratio is applied to the sales of the current period to estimate the probable bad debts which will arise as a result of the sales of this period. By the second method, the ratio of the bad debts of previous periods to the accounts receivable outstanding at the beginning of the period is obtained, and this ratio is applied to the accounts receivable outstanding at the time of calculation of the present allowance. Either method is satisfactory if followed consistently. It must be understood that there may be conditions under which statistics of past periods may not be satisfactory in estimating the loss on bad debts which will arise during the next period. In such cases proper allowance must be made.

Depreciation on Fixed Assets

Depreciation on a fixed asset is shown on the Balance Sheet as a deduction from the asset. It is shown on the Statement of Profit and Loss as an expense of the department which uses the asset. If the asset is not used by any particular department, the depreciation on it may be shown as an administrative expense. It is recorded at the end of the fiscal period by means of a journal entry which debits the departmental expense account to which it is chargeable and credits the Reserve for Depreciation account maintained with the asset on which the depreciation is calculated. The method of calculating depreciation and the operation of the Reserve for Depreciation account has been fully explained in Chapter XLVII.

Accrued Income

In order to state correctly the income of a given fiscal period, all the income which has been earned by the business during the period must be included in the statement. Income may be earned during one period which does not become due and payable until some time which falls in a later fiscal period. In the normal course of procedure such items are not entered in the books until they become payable, since no voucher arises as a basis of such entry. At the end of an accounting period, however, they must be recognized and recorded if the income is to be properly apportioned between periods.

An illustration of such income is to be found in the case of Interest on Notes Receivable. Thus, if the business accepts a customer's sixty-day note for $1,000.00, with interest at 6%, dated December 1st, and continues to hold this note until December 31st, the day of closing the books, it is apparent that one month's interest, or $5.00, has been earned during the period just ended. On December 31st the claim of the business for this amount should be shown on the Balance Sheet as an asset and on the Statement of Profit and Loss as an earning of the period.

If this item of accrued interest is to appear in the financial reports, it should also appear in the accounts if the Balance Sheet and the Statement of Profit and Loss are to reflect the financial facts about the business as shown in the accounts. To bring this item into the accounts, there must be a debit made to an asset account called Accrued Interest Receivable, and a credit to the income account, Interest on Notes Receivable.

The foregoing discussion of the treatment of accrued interest receivable applies to other items of accrued income. If there are a number of such items at the end of a period, it is not necessary to carry a separate account for each kind of income accrued. It is usually sufficient to carry a single account with Accrued Income and the individual items indicated in the explanation column.

Accrued Expense

At the end of each fiscal period, there are almost always some services which have been received by the business, but for which payment will not be due until some time in the following period. In the normal course of business procedure, no entry is made on the books for either the expense or the liability until the latter becomes payable or some sort of a voucher arises to serve as a basis of such entry. The most common example of such an accrued expense item is to be found in the pay roll. Assuming that wages are payable on Saturday and that the fiscal period ends on Wednesday, it is evident that on the date of closing the records the business has incurred as an item of expense the cost of three days' wages, and that this item should be shown on the Statement of Profit and Loss as an expense and on the Balance Sheet as a liability.

To enter such items of accrued expenses in the accounts it is necessary to make a journal entry by which the appropriate expense account is debited and the appropriate liability account is credited. In the foregoing illustration, the Salaries account of the department in which the employes work will be debited and Accrued Wages account will be credited. If there are several items of accrued expense, they may all be credited to one account entitled "Accrued Liabilities," and the individual items indicated in the explanation column.

In addition to accrued wages there is often accrued interest and accrued taxes at the end of the fiscal period. If these exist, their amount should be ascertained, the appropriate expense accounts debited, and the appropriate liability accounts credited.

Deferred Charges to Expense

It very often happens that a business pays in advance for the right to receive a certain service or purchases certain kinds of supplies in sufficient quantity to last for some time. At the end of the fiscal period, the services not yet received or the supplies not yet used, should not be charged as an expense of the current period, but should be carried forward and treated as an expense of the following period. Such items are termed "Deferred Charges to Expense." Some examples of such deferred charges are prepaid interest, prepaid insurance, and office supplies remaining on hand at the end of a period. When such supplies or services are purchased, they are debited to an expense account. At the end of the fiscal period it is necessary to determine if any portion of the service represented by the expenditure is unused. If so, it is necessary to make appropriate entries to show (a) the used portion as an expense; (b) the unused portion as an asset.

To illustrate, $100.00 has been paid for office supplies on September 1st. At the end of the fiscal period, on December 31st, supplies at the cost value of $40.00 are on hand. The Supplies account may be adjusted in two ways. By the first method the following entry will be made:

Profit and Loss	$60.00	
Supplies		$60.00

When this entry is posted, the Supplies account will show a balance of $40.00, which is the unused portion. This balance will be shown as a deferred charge to expense on the Balance Sheet. By the second method, two entries are made:

(1) Deferred Charges to Expense, or Supplies on Hand	$40.00	
Supplies		$40.00

This entry leaves a balance of $60.00 in the Supplies account, which will be disposed of as follows:

(2) Profit and Loss	$60.00	
Supplies		$60.00

The Supplies account is now in balance and the unused supplies are shown in a separate account. It is usually desirable to charge the used supplies to a departmental account instead of charging them direct to Profit and Loss. The latter method is followed here for the sake of simplicity and brevity.

Deferred Credits to Income

Income is sometimes received during one period which has not been earned by the business during that period, but will be earned in a following fiscal period. Such items of income are known as "Deferred Credits to Income." Examples of such deferred credits are to be found in the case of a publishing firm which receives subscriptions to its publications paid in advance for a period of time which runs past the end of the current period. Another example is the case of a commercial bank which discounts the note of a customer, deducting in advance the amount of the interest which may be charged for a period which runs beyond the end of the fiscal period.

At the end of the fiscal period it is necessary to make appropriate entries to show (a) the earned income as an income of the current period; (b) unearned income as a liability under the heading of "Deferred Credit to Income." This may be accomplished in two ways. By the first method, the income account will be debited for the earned income and the Profit and Loss account credited. This leaves the unearned income in the income account. By the second method, two entries are required. The first will debit the income account and credit the Deferred Credits to Income account for the amount of the unearned income. The second will debit the income account and credit the Profit and Loss account for the amount of the earned income. This causes the income account to balance. Both methods accomplish the same result. On the Balance Sheet the items of deferred credits to income are shown as liabilities. This is done on the theory that a firm is liable to the parties from whom the payments have been received for the service which is due them.

Periodical Closing of the Accounts

After the entries discussed in the foregoing paragraphs have been made, the accounts will reflect the financial condition of the business as of the date of the entries. It is then necessary to *close* the income and expense accounts that the income and expenses of the business for the past period may be clearly separated from the income and expenses of the following period. To effect this, it is necessary to transfer the balance of each income and expense account to one or more summary accounts.

In a manufacturing business all the accounts relating to the manufacturing operations will be transferred to the Manufacturing account. The balance of the Manufacturing account will show the cost of goods manufactured. This balance may be disposed of in two ways. By the first method it will be transferred to the debit of the Finished Goods account. This account will be debited with the inventory of finished goods at the beginning of the period and credited with the inventory of finished goods at the end of the period. The balance of the Finished Goods account will then show the cost of goods sold which may be transferred to a Cost of Sales account, which will then be closed into the Trading account, or it may be transferred directly to the Trading account. By the second method, the balance of the Manufacturing account is transferred directly to the Trading account, and this account is debited with the beginning inventory of finished goods and credited with the ending inventory. By this method the function performed by the Finished Goods account under the first method is performed by the Trading account.

Whichever method of closing the Manufacturing account is employed, the Trading account shows the cost of goods sold. It is then credited with the balance of the Sales account, and the balance of all other accounts which show information with reference to the trading operations of the business are closed into the Trading account. The balance of the Trading account shows the gross profit on sales. This is transferred to the credit of the Profit and Loss account. The Profit and Loss account is debited with the balance of each of the expense accounts and credited with each of the non-operating income accounts. The balance of this account then shows the net income for the fiscal period.

In a trading business the Manufacturing account will be eliminated and the balance of the account or accounts maintained with purchases will be transferred to the debit of the Trading account. The Trading account will be debited with the beginning inventory and credited with the ending inventory. The remainder of the procedure will be the same as that outlined for a manufacturing business. The procedure to be followed by both a manufacturing and a trading business is illustrated by the following skeleton accounts:

A. MANUFACTURING BUSINESS (1)

Manufacturing Account

DEBIT:	CREDIT:
At the close of each fiscal period: With goods in process at the beginning of the period. With cost of materials used. With cost of direct labor. With the manufacturing expenses applicable to the period.	At the close of each fiscal period: With the cost of goods in process. The balance shows the cost of goods manufactured and is transferred to the debit of the Trading account.

Trading Account

DEBIT:	CREDIT:
With the inventory of finished goods at the beginning of the period. With the cost of goods manufactured during the period, the corresponding credit being to the Manufacturing account. With sales returns and allowances.	With the inventory of finished goods at the end of the period. With the sales for the period, the corresponding debit being to the Sales account. With purchases returns and purchases allowances. The balance of this account shows the gross profit on sales and is transferred to the Profit and Loss account.

Profit and Loss Account

DEBIT:	CREDIT:
With the balance of each of the expense accounts, such as Depreciation on Office Equipment, Administrative Expense, Insurance and Taxes.	With the gross profit on sales, the corresponding debit being to the Trading account. With the balance of all non-operating income accounts. The balance of this account shows the net income for the fiscal period.

(1) When an "order cost system" is in use, a Work in Process account will take the place of the Manufacturing account. The closing entries to be made under these conditions are explained and illustrated in Chapter 49.

B. TRADING BUSINESS

Trading Account

DEBIT:	CREDIT:
With the inventory at the beginning of the period. With the cost of purchases for the period. With sales returns and sales allowances. With Freight In on purchases.	With the ales for the period. With purchases returns and purchases allowances. With the inventory at the end of the period. The balance shows the gross profit on sales and is transferred to the Profit and Loss account.

Profit and Loss Account

DEBIT:	CREDIT:
With the balance of each of the expense accounts, such as Depreciation on Office Equipment, Administrative Expense, Insurance and Taxes.	With the gross profit on sales, the corresponding debit being to the Trading account. With the balance of all non-operating income accounts. The balance of this account shows the net income for the fiscal period.

Post-Closing Entries

After the periodical adjusting and closing entries are made, certain adjustments are usually made before the entries for the next period are posted to the ledger. These adjustments may be necessary in connection with (1) accrued income; (2) accrued expense; (3) deferred charges to expense; and (4) deferred credits to income. To illustrate the method of making these adjustments, the handling of accrued income will be discussed and illustrated.

Accrued income is recorded by debiting an accrual account and crediting the income account to which the income belongs. When the income is collected, it should be credited against the accrual. Usually the income collected will not be the same as the accrual, for it will be for the accrual, plus the income earned between the close of the fiscal period and the payment. If the accrued income is left in the accrual account, it is necessary when the payment of the income is received to allocate the receipt between the accrual account and the income account. To avoid this, it is customary to transfer the accrual back to the income account as soon as the closing entries are completed. To illustrate, a four months' note for $2,000.00, with interest at 6%, is received on November 1st. When the books are closed on December 31st, $20.00 of interest has accrued and the following entry will be made:

Accrued Interest on Notes Receivable .	$20.00	
Interest Earned		$20.00

After the books are closed this entry will be reversed by the following one:

Interest Earned	$20.00	
Accrued Interest on Notes Receivable		$20.00

When the $40.00 interest is received on March 1st, the following entry will be made:

Cash	$40.00	
Interest Earned		$40.00

The Interest Earned account will then appear as follows:

INTEREST EARNED

Jan. 1	$20.00	March 1	$40.00

The balance of $20.00 shows the correct earnings for the year in which the interest is received.

In the same manner and for similar reasons, accrued expenses are transferred back to the expense accounts to which they belong.

If the first method outlined for handling deferred charges to expense and deferred credits to income is employed, no post-closing adjustments are necessary. If the second method is employed, it is necessary to make entries reversing the entries made when the deferred charges to expense and deferred credits to income accounts were set up.

The student should be able to determine easily the entries necessary to adjust the accrued expense, deferred charges to expense, and deferred credits to income accounts by comparing this procedure with the detailed procedure given for accrued income. If he has any difficulty he should read Chapter XXVII.

Disposition of Net Profit

The balance of the Profit and Loss account shows the net profit for the period. From this profit the following appropriations may be made:

1. Income taxes.
2. Proprietorship reserves.
3. Dividends.

The balance, after making these reservations, is carried to the Surplus account.

Property taxes are operating expenses and must be entered before arriving at net income, but income taxes are a levy on income and can not be calculated until the net income is determined. They must be calculated before proprietorship reserves or dividends are considered. After the amount of the income taxes are determined, an entry should be made as follows:

Profit and Loss . . . .
  Accrued Income Taxes . . . .

In many cases the estimated income taxes are shown as "Reserve for Taxes." This is an improper use of the term "reserve," since they constitute a liability and should be so shown. When the taxes are paid, Accrued Income Taxes will be debited.

The meaning of a *proprietorship* reserve and its distinction from a *valuation* reserve has been explained previously. Valuation reserves, like reserves for depreciation and bad debts, are set up by a debit to expense, but proprietorship reserves represent merely *appropriated* profits and are set up by a debit to Profit and Loss. The most frequent of these reserves is Reserve for Bond Sinking Fund. Bonds are issued with an agreement that a certain amount of profits are to be carried to a Reserve for Sinking Fund each year during the life of the bonds. At the end of each year the following entry will be made:

Profit and Loss . . . .
  Reserve for Bond Sinking Fund ....

When the bonds are paid, the Reserve for Bond Sinking Fund will be transferred to the Surplus account.

The mortgage under which bonds are issued may provide for the setting aside each year of a certain amount of cash which is to be used to pay the bonds at maturity. In most cases these funds are deposited with a trustee who holds them for the benefit of the bondholders. The trustee usually invests these funds and adds the income thus obtained to the principal. By this means the amount of cash to be set aside becomes less each year. For instance, if $20,000.00 of bonds are issued, payable in twenty years, with a provision in the mortgage for their redemption from a fund created by yearly installments, it will be necessary to set aside $1,000.00 each year if the funds are not to be invested. If the funds are invested, however, something less than $1,000.00 a year can be set aside, since the funds set aside each year will bear interest for the remaining years of the life of the bonds. By means of tables, known as *bond tables*, it is easy to calculate the amount which must be put in the fund each year.

When cash or its equivalent is put into a fund to provide for the redemption of bonds, it is termed a *bond sinking fund*. Sometimes *reserves* are confused with *funds*. For instance, the *Reserve for Bond Sinking Fund* may be confused with the *Bond Sinking Fund*. If the method of establishing the two are considered, there should be no confusion. As previously explained, if a mortgage provides for a reserve for sinking fund, the *reserve* is set up by a debit to Profit and Loss, and as credit to the reserve account. On the other hand, if the mortgage provides for a sinking fund, this is established by the following entry:

Bond Sinking Fund	....	
Cash		....

The bond sinking fund represents cash or its equivalent. It is shown on the Balance Sheet as an asset. The reserve represents appropriated or specially designated profits or surplus and is shown on the Balance Sheet as part of the net worth or proprietorship. If a sinking fund is established, the following entry is made when the bonds are paid:

Bonds Payable	....	
Bond Sinking Fund		....

This results in the removal of the sinking fund from the accounts.

When dividends are declared, they may be debited to Profit and Loss or to Surplus, depending on whether the Profit and Loss account is closed before the dividends are declared. If the dividends are to be charged against the Profit and Loss account, the following entry is made:

Profit and Loss	....	
Dividends Payable		....

When the dividends are paid, the entry is:

Dividends Payable	....	
Cash		....

The balance of the Profit and Loss account after making provision for income taxes, proprietorship reserves, and dividends is transferred to the Surplus account by the following entry:

Profit and Loss	....	
Surplus		....

QUESTIONS FOR CLASS DISCUSSION

1

Explain and illustrate fully the difference between adjusting entries and closing entries.

2

What difference, if any, is there between a calendar and a fiscal year? Why is the life of a business not measured always by the calendar year?

3

The Trial Balance of the Towne & Hanson Company contains, among others, the following accounts at the end of the fiscal year:

Cash	....	
Accounts Receivable	....	
Notes Receivable	....	
Merchandise Inventory	....	
Building	....	
Land	....	
Office Equipment	....	
Notes Payable		....
Accounts Payable		....
Bonds Payable		....
Reserve for Sinking Fund . . .		....
Capital Stock		....
Surplus		....
Selling Expense	....	
Administrative Expense . . .	....	

What adjustments will probably be necessary before these accounts will reflect the true condition of the business at this time?

4

Previous to this time, the Towne & Hanson Company has made no provision for the losses arising from bad debts. It is decided to make such a provision at the end of the present fiscal year. You are requested to determine the amount of this provision. Explain how you would proceed.

5

On the ledger of the X Company there appears a Depreciation account which shows a balance of $3,600.00. An analysis of the entries made in this account shows that its balance represents the following: (a) Depreciation on Factory Equipment, $2,000.00; (b) Depreciation on Building Used for Administrative Offices, $800.00; (c) Depreciation on Office Furniture, $400.00; (d) Depreciation on Trucks, $400.00.

The trucks are used one-half of the time in delivering to the railroad station sales made to customers, and are used the remainder of the time in transporting incoming purchases of raw materials. State your objection to the method of recording depreciation which is employed by this company and explain how you would proceed to adjust this account to remove your objections.

6

You have been employed by the Douglas Mercantile Company to supervise the work of the bookkeeper in making the periodical summary of its accounts. You find that the company has large holdings of interest-bearing notes, stocks and bonds, and that it also has property from which it receives rent. Consequently it has numerous items of accrued income at the end of the fiscal period. How would you instruct the bookkeeper to show these in the accounts?

7

The bookkeeper objects to the opening of numerous accounts with accrued income. Explain how you might meet his objections.

8

You find that the Douglas Mercantile Company has taxes accrued on its property and merchandise stock to the amount of $250.00, and you estimate that the income taxes due from the company will amount to $1,500.00. Explain how you would instruct the bookkeeper to record each of these items.

9

You find that the Douglas Mercantile Company has a large stock of wrapping paper, twine, and other supplies of a similar nature which have been charged to a Supplies account when purchased. An inventory of these supplies shows their value at the end of the year to be $3,600.00. The purchases during the year as shown by the Supplies account amount to $12,000.00. Explain and illustrate two ways in which the Supplies account can be adjusted at the time of the periodical closing.

10

The New York Newspaper Company receives subscriptions in advance from its subscribers. It credits these to an income account entitled "Subscriptions." Upon examination at the end of the fiscal period, you find that the subscribers have received but one-half of the service to which they are entitled by the company. Explain how you would adjust the Subscription account at the time of the periodical closing.

11

Explain fully the accounts which should be employed for summarizing the expenses and income accounts of a manufacturing business at the end of the fiscal period, stating for what each should be debited and credited, what the balance represents, and the disposition of this balance.

12

Explain fully the accounts which should be employed for summarizing the expenses and income accounts of a trading business at the end of the fiscal period, stating for what each should be debited and credited, what the balance represents, and the disposition of this balance.

13

On March 1st, the Lloyd-Jones Company receives $60.00 interest on a four months' note which the company received from a customer on November 1st. The fiscal year of the Lloyd-Jones Company ends on December 31st. Explain how this interest will be recorded.

14

The net profits of the Reed-Prentice Company for the year 1920 are $100,000.00. Explain and illustrate the possible disposition of these net profits.

15

The King Manufacturing Company has outstanding $20,000.00 of twenty-year notes which are secured by a mortgage on their factory. The mortgage provides that at the end of each fiscal period a reserve for sinking fund shall be established equal to 1/20 of the par value of the bonds. It also provides that an equal amount of cash shall be set aside in a sinking fund which is placed in the hands of a trustee. Explain the method by which each of these are set up in the accounts at the end of the year.

16

At the end of the twenty years the King Company pays the bonds mentioned in Question 15. Explain the entries which will be made at that time in connection with the bonds, the sinking fund, and the reserve for sinking fund.

LABORATORY MATERIAL

Exercise No. 193

The Trial Balance of the Hyatt Manufacturing Company on December 31, 1920, is as follows:

Cash	$ 5,000.00	
Bills Receivable	4,000.00	
Bills Payable		$ 16,000.00
Sales		250,000.00
Materials and Supplies Purchased	52,000.00	
Sundry Merchandise Bought	3,000.00	
Selling Wages	22,000.00	
Manufacturing Wages	88,000.00	
Sale of Raw Material		500.00
Office Salaries	6,000.00	
Manufacturing Expenses	15,000.00	
Office Expenses	3,000.00	
Selling Expenses	3,000.00	
Advertising	2,000.00	
Light, Heat and Power	3,000.00	
Rent of Factory	4,000.00	
Rent of Store and Office	2,000.00	
Repairs to Machinery	1,000.00	
Delivery Expenses	2,000.00	
Interest and Discount	800.00	
Commissions Paid	5,000.00	
Machinery and Tools	150,000.00	
Furniture and Fixtures	12,000.00	
Book Accounts Receivable	60,000.00	
Book Accounts Payable		18,000.00
Expenses of Incorporation	500.00	
Reserve for Doubtful Accounts	500.00	
Stocks and Bonds	20,000.00	
Goodwill	50,000.00	
Capital Stock		200,000.00
Surplus		29,300.00
	$513,800.00	$513,800.00

Investigation of the records and supporting documents of the company discloses the following:

1. INVENTORIES:

(a) Finished Goods	$10,000.00
(b) Work in Process	5,000.00
(c) Material and Supplies	3,000.00

There were no inventories of Finished Goods or Work in Process at the beginning of the year. There was an inventory of Raw Materials of $2,000.00 at the beginning of the year, which was charged to the Materials and Supplies Purchased account.

2. DEPRECIATION:

(a) Machinery and Tools . . .	20% of book value
(b) Furniture and Fixtures . .	10% of book value

3. LOSS ON BAD DEBTS:

(a) Estimated to be 2% of sales for the year.

4. ACCRUALS:

(a) Interest on Notes Receivable	$200.00
(b) Interest on Bonds Owned	150.00
(c) Interest on Notes Payable	100.00
(d) Factory Wages	400.00
(e) Office Salaries	200.00
(f) Sales Salaries	500.00
(g) Commissions	800.00

5. STOCKS AND BONDS:

This item represents:

(a) Stocks of the Brown Manufacturing Co., $8,000.00

(b) Bonds of the Jones Mercantile Co., $12,000.00

Instructions: 1. Construct a Trial Balance for the Hyatt Manufacturing Company arranging the items in the order in which you think they should appear and using the terminology which you think desirable.

2. Prepare entries to give effect to the foregoing adjustments.

3. Prepare a Balance Sheet and a Statement of Profit and Loss.

4. Prepare closing entries.

5. Set up the ledger accounts which would be required to show the periodical summary of the expense and income accounts of the company.

6. Prepare post-closing entries.

Exercise No. 194

The Trial Balance of Griffin & Company on December 31, 1920, is as follows:

Cash	$ 10,000.00	
Notes Receivable	20,000.00	
Accounts Receivable	25,000.00	
Notes Payable		$ 3,000.00
Accounts Payable		14,000.00
Merchandise Inventory	55,000.00	
Store Property	40,000.00	
Bonds Payable 5% 10 yr.		10,000.00
Unimproved Real Estate	6,000.00	
Store Fixtures	5,000.00	
Reserve for Depreciation on Store Fixtures		500.00
Delivery Equipment	2,500.00	
Capital Stock		75,000.00
Surplus		71,300.00
Purchases	150,000.00	
Sales		152,000.00
Discounts		100.00
Rent on Hall over Store		200.00
Taxes	200.00	
Interest	1,000.00	
Heat and Light	400.00	
Salesmen's salaries	5,000.00	
Officers' salaries	4,000.00	
Administrative Expense, Miscellaneous	2,000.00	
	$326,100.00	$326,100.00

Supplementary Data

1. Merchandise Inventory, December 31, 1920, $30,000.00.

2. Reserve for Bad Debts, 1% of Accounts Receivable Outstanding.

3. Depreciation:

   (a) Store Property, 5% of book value of building. (Building represents ¾ of value of store property.)

   (b) Store Fixtures, 10% of book value.

   (c) Delivery Equipment, 20% of book value.

4. Accruals:

(a) Interest on Notes Receivable	$300.00
(b) Interest on Notes Payable	250.00
(c) Interest on Bonds	200.00
(d) Salesmen's Salaries	180.00

5. Discounts:

An examination of the Discounts account shows that it has been debited during the year for $300.00 and credited for $400.00.

6. Taxes:

$30.00 of the amount shown under taxes was paid on unimproved real estate, the remainder paid on the store property and merchandise stock.

7. Bonds Payable:

The mortgage under which the bonds were issued provides that an amount equal to 5% of their par value shall be credited to a Reserve for Sinking Fund at the end of each fiscal period.

Instructions: 1. Make the adjusting entries.
2. Prepare a Balance Sheet.
3. Prepare a Statement of Profit and Loss.
4. Make the closing entries.
5. Make the post-closing entries.

Exercise No. 195

The Crawford Manufacturing Company has outstanding $100,000.00 twenty-year 6% bonds. Its outstanding stock is (a) 6 per cent cumulative preferred, $200,000; (b) common, $300,000. The mortgage under which the bonds are issued provides the following:

(a) That at the end of each fiscal period there shall be credited to a Reserve for Bond Sinking Fund an amount equal to 5 per cent of the par value of the bonds.

(b) That the same amount of cash is to be transferred to a Sinking Fund to be maintained for the payment of the bonds at maturity.

The charter of the corporation provides

(a) That the preferred stock is to receive a 6 per cent dividend before the common stock receives any dividend.

(b) That after the common stock receives a 6 per cent dividend, the preferred and common stock shares equally in the distribution of profits until they each receive a total dividend of 9 per cent, after which the common stock may receive such further dividends as the directors may desire without further participation of the preferred.

The net operating profit of the company for the year 1920 is $250,000. The estimated income taxes for the year are $30,000. No dividends have been declared on the preferred stock for two years. The directors declare the necessary dividends on the preferred stock and a 10 per cent dividend on the common.

Instructions: 1. Make the journal entries to show the distribution of the net profits of the year.

CHAPTER LXVIII

RECORDS OF ENTRY

Classification of Accounting Records

Accounting records may be classified into three main groups: (a) auxiliary records; (b) records of original entry; (c) records of final entry. Auxiliary records contain data which is useful in carrying on the daily operations of the business and which supplements that which is shown in the records of original entry. For instance the check stubs provide a means of determining the daily bank balance, and, in addition, they supplement and support the entries in the cash disbursements journal. Records of original entry provide a preliminary analysis of transactions and serve as mediums for transferring this analysis to the records of final entry. They are sometimes termed "posting mediums," and this title is quite indicative of their function. Records of original entry may not contain the first *record* of transactions, but they provide the first *entry* of them, if entry is taken to imply an analysis of transactions to indicate their effect on the financial condition of the business. Records of final entry provide a summary and classification of transactions in proper form for the preparation of the financial reports. Records of final entry are termed *ledgers*.

Auxiliary Records.

Auxiliary records may be classified as (a) evidence records, and (b) memorandum records. Evidence records usually take the form of bound stubs on which are recorded the same data as that written on commercial papers detached from the stubs and given out in the course of business transactions. Check stubs, note stubs, draft stubs and receipt stubs are illustrations of such records. These records furnish valuable evidence of the commercial papers issued in the course of the daily transactions. This proof is unclassified, however, except by date and number. Such records as check and draft stubs afford data from which to record transactions in the books of original entry.

Memorandum records contain useful information of various kinds. Notes receivable and notes payable records, when they are not used as posting mediums, are examples of such records. They give information with reference to the due dates of the notes, rate of interest, where payable, the endorsers, and similar items. The tickler file of customers' statements, maintained by the credit and collection department, is another illustration of memorandum records. By means of this file the credit and collection department can keep in touch with the payment of delinquent customers. Tickler files of various kinds may be maintained by executives and employes. For instance, the comptroller may have such a file showing the executives to which each of the periodic reports are sent. At the end of each period when the reports are sent, the name of each executive will be checked off. A similar file may be kept of those to whom the general, special and accounting orders are to be sent. The usual purpose of memorandum records is to call some particular class of facts to the attention of the executive.

In addition to the memorandum records kept for the use of executives and employes, there may be any number of statistical records maintained by the various departments of the business or by a central statistical agency from which periodical reports are prepared for executive use.

Records of Original Entry.

Records of original entry serve two purposes: (1) They present a chronological history of the business, and (2) they serve as posting mediums. In the early development of accounting records the first purpose was regarded as very important. Considerable detail was recorded in these records, and frequent reference was made to them for information. The present tendency is to record less and less detail in records of original entry and to use them primarily as posting mediums. They are rarely referred to for information. The ledger provides summarized and classified information such as is usually desired by executives. If details are desired, it is more satisfactory to refer to the original business forms. This procedure is facilitated by the modern practicc of having a business voucher to represent each transaction. In the early development of commerce, when the vendor and vendee dealt with each other personally and made exchanges without the preparation of vouchers, a detailed description of the transaction in the records of original entry was necessary. Under the present practice the vendor and the vendee dealing through their clerks, exchange vouchers which represent the transaction. By means of modern filing methods, it is more convenient to refer to the vouchers for information than to the record of original entry.

The present tendency, therefore, is to use records of original entry merely as posting devices. The student will probably have a clearer comprehension of present-day records of original entry if a brief discussion is given of their development.

Development of Journalization

The entry of a transaction involves (a) its analysis to determine its effect upon the ledger accounts, and (b) its record to show this analysis. The effect of a transaction on the ledger accounts is expressed in terms of debits and credits; therefore, the record of the transaction must be in such form that the debits and credits to which it gives rise can be easily transferred or posted to the accounts. The process of analyzing a transaction and making a record thereof is termed *journalization.* The record which shows the journalization process most forcibly is the general journal. The simplest form of the general journal is that in Illustration No. 132.

JUNE 1, 1920

	8	*Purchases*	*560*	*00*		
	14	*Accounts Payable*			*560*	*00*
		Purchased Merchandise from				
		James King, terms 2/10, n/60				

Illustration No. 132—Two-column General Journal

The next step in the development of journalization is the clearer separation of debits and credits by placing them on opposite sides of the page. The method of showing this is shown in Illustration No. 133.

JUNE 1, 1920

560	*00*	*8*	*Purchases*			
			Accounts Payable	*14*	*560*	*00*
			Purchased Merchandise from			
			James King, terms 2/10, n/60			

Illustration No. 133—Variation of Two-column General Journal

When either of the forms shown in Illustrations Nos. 132 and 133 is used for journalizing it is necessary to post each item individually to the ledger accounts. There are some items which appear frequently, and a saving is effected if these can be posted in total instead of individually. One of the items which appears most frequently is cash. To make possible its posting in total, the general journal may be constructed as shown in Illustration No. 134.

JUNE 1, 1920

Cash	General	Folio		Folio	General	Cash
340 00		*8*	*Cash*			
			Accounts Receivable	*112*	*340 00*	
			Received on Acct. from H. B. Adams			
			5			
	460 00	*14*	*Accounts Payable*			
			Cash	*8*		*460 00*

Illustration No. 134—Columnar General Journal

At the end of the fiscal period the debit and credit cash columns can be added and the total of each carried to the Cash account. This eliminates the posting of the individual items of cash receipts and disbursements.

In the same manner other items which appear frequently may be taken out of the "General" columns and placed in special columns. This leads to the development of the columnar journal, of which a typical form is shown in Illustration No. 135.

JUNE 1, 1920

Purchases	Accts. Rec.	Cash	Gen.	Folio	Entry	Folio	Gen.	Cash	Accts. Pay'le.	Sales

Illustration No. 135—Columnar General Journal

The columnar journal is used to some extent in modern practice. The so-called "cash journal," in which all transactions of the business are entered, is but an adaptation of the columnar journal. Numerous columns are added and sometimes the cash journal extends over two or three pages. The more customary practice is not to use the columnar journal to record all transactions, but only those which can not be recorded in the special journals, such as the cash journals, sales journal and purchases journal.

When it was customary for the management to inspect the books of original entry to obtain information with reference to business operations, the columnar journal was useful, since the totals of the various columns afforded useful information. The posting of totals to the ledger eliminated much detail in the accounts and made the ledger record more useful. Although the columnar journal has the foregoing advantages when it is used to record all the transactions of the business, it has the following disadvantages:

1. It is bulky, unwieldy and awkward because of the distance of the outer columns from the explanation of the entry.

2. The number of columns leads to confusion and errors.

3. The entries in some columns may be very few, and it requires much work to carry the total of all the columns forward from page to page.

4. Because only a few items are entered in many columns much space is wasted.

5. The form is apt to be confusing to any one not familiar with its operation.

Because of the practical disadvantages of using a journal with many columns, it has been found expedient to construct separate journals for recording the items which occur most frequently and thus eliminate from the general journal the columns which contain these items. In pursuance of this policy, the debit column with cash receipts may be eliminated and the transactions formerly recorded in this column recorded in a cash receipts journal as shown in Illustration No. 136.

CASH RECEIPTS JOURNAL

Date		Account Credited	Explanation	Folio	Item		Total	
1920 June	*1*	*Accounts Receivable*	*J. King Inc., 5/10*	*4*	*380*	*00*		

Illustration No. 136—Cash Receipts Journal

Since only cash receipts are entered in the cash receipts journal, it is unnecessary to indicate that cash is to be debited, since the total of all the items entered will be carried to the debit of Cash.

In a similar manner, the items in the "Cash Cr." column, the "Sales" column, and the "Purchases" column will be recorded in a cash disbursements journal, a sales journal, and a purchases journal. If other entries, such as those with notes receivable, notes payable, sales returns or purchases returns become frequent, they may be placed in separate columns in the general journal; and, if they become sufficiently frequent, they may be taken out of the general journal and placed in separate journals, such as the notes receivable journal, the notes payable journal, sales returns journal, and purchases returns journal.

Development of Special Columns in Separate Journals

The purpose of separate journals is to provide a better analysis and classification of transactions than can be obtained from their record in one journal. For instance, transactions are classified as sales transactions, purchases transactions, cash receipt transactions, cash disbursements transactions, and miscellaneous transactions, and are recorded to show this analysis. Sometimes it is desirable to have a further analysis. The cash receipts journal provides a record of all cash received, but cash is received from different sources, and it may be desirable to have a classification of cash which will indicate the source from which it comes. A large part of the cash received in most businesses is from customers in payment of accounts. In a retail business considerable cash is usually received as a result of cash sales. In addition, some cash may be received from miscellaneous sources, such as interest on notes of customers, sales of fixed assets, etc. Consequently, it is frequently desirable to have cash receipts classified to show the amount received from customers in payment of accounts, the amount received from cash sales, and the amount received from miscellaneous sources. Such an analysis is provided by a cash receipts journal constructed as shown in Illustration No. 137.

CASH RECEIPTS JOURNAL

Date	Account	Explanation	Folio	General		Cash Sales		Accounts Receiv.		Sales Discount		Total Cash	
June 1	*J. Hunt*	*Inv. 5/20*	*4*					*360*	*00*	*3*	*60*	*356*	*40*
2	*Sales*	*Cash Sales*	*16*			*200*	*00*					*200*	*00*
4	*NotesReceivable*	*J. Brown*	*10*	*180*	*00*							*180*	*00*

Illustration No. 137—Columnar Cash Receipts Journal

It is assumed that the student understands the purpose of including the "Sales Discount" column in the cash receipt journal, and the method of posting from the columnar cash record.

In the same manner that separate columns are introduced into the cash receipts journal, they can be used in all the other journals. For instance, the King Department Store may have four departments and may desire to know the sales of each department. This can be easily accomplished by having a sales journal with four columns for analyzing the sales. Such a record is illustrated in Illustration No. 138.

SALES JOURNAL

Date	Name of Customer	Address	Terms	Folio	Invoice	Accts. Rec.	Dept. A.	Dept. B.	Dept. C.	Dept. D.
June 1	*J. Jones*	*Chicago*	*2/20, n/30*	*1*	*1*	*280 00*	*120 00*		*160 00*	
3	*W. Long*	*Boston*	*n/30*	*2*	*2*	*460 00*				*460 00*
8	*B. Hines*	*New York*	*2/30*	*6*	*3*	*800 00*		*300 00*	*100 00*	*400 00*

Illustration No. 138—Columnar Sales Journal

Purchases may be analyzed by departments, commodities or any other classification by introducing additional columns in the purchase journal in a manner similar to the introduction of the separate columns in the sales journal shown in Illustration No. 138. If the purchases of material and services are combined in one record, it is necessary to have a *voucher record* which may contain a great many columns. The form of such a record is shown in Illustration No. 68.

Loose-leaf and Card Records

The separate columns in the records of original entry serve a very useful purpose and are one of the most significant developments of modern accounting. Like most accounting methods, however, columnar records are not adaptable to all circumstances, and, under some conditions, their use would lead to decided disadvantages. For instance, in the recording of sales, it is convenient to use a sales record, such as is shown in Illustration No. 138, under the following conditions: (a) when the number of the sales transactions performed daily is not very large; (b) when only one analysis of sales is required; and (c) when the analysis desired does not require too many columns. If a great many sales transactions are performed each day, it is slow and costly to copy each one in a record constructed like Illustration No. 138, which requires considerable detail with reference to each transaction. To avoid this burden, the carbon copy of the sales invoice is filed in a loose-leaf binder, and, at the end of the month, these are totalled by means of an adding machine and a journal entry made, debiting Accounts Receivable and crediting Sales. If a departmental analysis is desired, the invoices are assembled by departments and a separate binder maintained for each department. This necessitates that a separate invoice be prepared for the sales of each department. In many businesses this is feasible, although in some it is not.

Sometimes it is desirable to maintain two or more analyses of sales. For instance, it may be desired to analyze sales by departments, by salesmen, and by terms of sale. It is not possible to make these analyses by means of a single columnar sales record. To obtain the three-fold analysis, it is necessary to do one of two things: (a) maintain three separate columnar records with sales; (b) use tabulating machinery to obtain the analyses. The use of such machinery is explained in a subsequent chapter. A business having a great many departments can not conveniently use a columnar sales record, for it becomes too large, bulky and unwieldy. A manufacturing business selling several thousand items may have its sales classified into a hundred groups and desires an analyses which will show the sales in each group. Obviously it is impossible to have a sales record with one hundred columns. It is necessary to obtain this analysis by means of tabulating machines or to have a separate invoice made for the sales of each group and obtain the total of the assembled group invoices at the end of each period.

The undesirability of attempting too extensive a classification by means of a columnar record is illustrated by the voucher record. Formerly a columnar record was used almost exclusively for making the voucher analysis. Since it has become customary to make a more complete analysis of expenditures, the columnar voucher record has become more and more unsatisfactory because of the inconvenience and impracticability of maintaining a sufficient number of columns in it to provide the desired analysis. It has become customary, therefore, to maintain the voucher distribution on cards having one card represent each account which it is desired to debit from the voucher record.

Records of Final Entry

The development of records of final entry has in many ways been similar to the development of records of original entry. In the early development of accounting records, all accounts were kept in a bound ledger with the standard ruling on the ledger page. Since the entries made in the records of original entry were posted individually to the ledger, the accounts contained many items and much detail. As the separate journals developed, it become more and more the practice to post totals from the records of original entry, and consequently the detail in many accounts was eliminated. The introduction of separate columns in the separate journals caused the posting of more totals to the accounts and the elimination of more detail. The next step in ledger development was the removal of certain groups of accounts, such as accounts receivable and accounts payable, from the general ledger, their maintenance in separate ledgers, and the introduction of controlling accounts in the general ledger which showed the total of the details shown in the subsidiary ledger. The use of controlling accounts and subsidiary ledgers has been greatly extended during recent years until the general ledger often contains few accounts other than controlling accounts.

The introduction of controlling accounts has been followed by the use of loose-leaf and card ledgers for use both as general ledgers and subsidiary ledgers. In the development of subsidiary ledgers, it has been found desirable to show in the ledger information in addition to that provided for by the standard ledger ruling. This has led to the development of various ledger rulings adapted to particular needs. Some of the more customary ruling are shown in Chapter XLVI, "Special Forms of Ledgers," and Chapters LX and LXI, "Records and Reports for the Production Department." The latest development in ledger keeping is the use of bookkeeping machines in making ledger entries. The use of such machines is explained in the chapters immediately following.

Review and Summary

It is the purpose of the foregoing discussion to indicate the development of records of entry from the days when all entries were made in the journal day-book and the ledger to the present, when multitudinous forms and records are used in the large business enterprise. This development may be stated in outline form as follows:

I. Auxiliary Records and Records of Original Entry

1. The general journal is used as the only book of original entry and contains a record of all the transactions of the business. Most transactions are not represented by vouchers, and it is necessary to make detailed explanations in the journal for future reference.

2. Special columns are developed in the journal for recording the transactions which occur most frequently.

3. Separate journals are introduced to record the transactions recorded in the separate columns in the general journal. Consequently the cash journal, purchase journal and sales journal come into use.

4. Separate columns are introduced in the separate journals to provide an analyysis of the transactions recorded there. As a result there are columnar cash journals, sales journals and purchase journals as well as a columnar general journal.

5. Auxiliary records and business vouchers are developed and these eliminate the necessity for detail in records of original entry.

6. Loose-leaf and, in some cases, card records are used for records of original entry and mechanical appliances are developed to use in making these records.

II. Record of Final Entry

1. All original entries are made in the general journal and each debit and credit arising from these entries is posted individually to the ledger; this causes the accounts to contain much detail. The bound ledger with standard ruling is used for all accounts.

2. The separate journals are introduced and only totals are posted to some of the more important accounts.

3. The separate columns are introduced in the separate journals, and this results in the posting of more totals and the elimination of more details from the accounts.

4. Subsidiary ledgers are used to record certain accounts and controlling accounts for these ledgers introduced in the general ledger.

5. Loose-leaf and card ledgers take the place of the bound ledger and additional rulings are introduced to provide for information not provided by the standard ruling.

6. Mechanical appliances are developed to use in making the subsidiary ledger record.

In stating the development of records of entry, it has been necessary to repeat considerable material with which the student is already familiar, but this is deemed worth while that he may have a comprehensive picture. This chapter may be regarded as a review and summary of all the previous discussion of records of entry. The two chapters immediately following may well be considered as a continuation of the present chapter, since they deal with the use of mechanical appliances in making the accounting record.

QUESTIONS FOR CLASS DISCUSSION

1

You are employed by the Hayman Company, which has previously had no systematic accounting records, to assist their bookkeeper in the installation of a proper system of accounting control. Explain the various *kinds* and *classes* of records which you would instruct the bookkeeper to maintain and explain the general purpose of each.

2

In opening the records of the foregoing company you desire to prepare a Balance Sheet to use as a basis for your opening entries. The company previously has not maintained a cash record or a notes receivable or notes payable record. In order for you to prepare your Balance Sheet, it is necessary for you to know the cash balance, the notes payable outstanding, and notes receivable on hand. Explain how you would proceed to escertain these.

3

You succeed in preparing a Balance Sheet for the Hayman Company and present it to the general manager for approval before using it as a basis for your opening entries. The general manager contends that since you have been able to prepare this Balance Sheet without the aid of an accounting system, it does not seem necessary to incur the expense of the installation of such a system. How would you answer his argument?

4

Compare the use made of records of original entry at the present time with their use in the early stages of the accounting development. Explain the reason for this change in use.

5

Trace the development of records of original entry from the time of the two-column general journal to the time of the use of the columnar voucher record and explain the purpose of each change which has taken place.

6

The James Manufacturing Company uses one columnar record to record all transactions of the business. The transactions of the business have increased in number and variety until this record now contains thirty columns. Explain the possible disadvantages of the use of this record by the company.

7

State what changes you would suggest to eliminate these disadvantages.

8

The Walworth Manufacturing Company has previously classified its expenses under twenty headings and has maintained a voucher record with a separate column for each class of expense. Owing to the expansion of its business, it is found desirable to increase the number of expense accounts and upon investigation it is determined to maintain seventy-five accounts in the future. What change in the form of voucher record do you think this increase in the number of expense accounts will make necessary?

9

It has been found quite burdensome when the sales transactions of a business are very numerous to record each transaction separately in the sales journal. Explain the method which may be employed to eliminate the necessity of recording sales in this manner.

10

In what way has the development of records of original entry affected the form and content of records of final entry?

11

Explain and illustrate the effect of the introduction of controlling accounts on the form and content of the records of final entry.

LABORATORY MATERIAL

Exercise No. 196

Brown & Smith, a partnership, conducted a manufacturing business for many years. During recent years their business has expanded rapidly, and two years ago they incorporated as Brown, Smith & Company. The corporation issued $1,000,000 of stock, $500,000 preferred, and $500,000 common. One-half of each kind of stock was given to the partners for their business and the remainder was sold for cash to the public. With the additional capital obtained from this sale, new equipment was purchased and an extensive advertising campaign waged. As a result, the business has grown very rapidly during the past two years.

The executives of Brown, Smith & Company find that they have difficulty in obtaining accurate and comprehensive information with reference to their business from their accounting department. The banks from whom they seek loans state that the financial statements presented by the company are incomplete and unsatisfactory; the customers complain that they do not receive their invoices until several days after the receipt of their goods and that the monthly statements do not reach them until three weeks after they should be received, and that then they are often incorrect. The creditors likewise complain that the company does not pay its accounts promptly and that the amounts it sends in payment are often incorrect. The losses on bad debts are very large and are increasing each year.

The president of the company asks you to investigate its accounting methods and to write him a report stating the changes which you think are necessary. In your investigation you determine the following:

1. *Opening of Corporation Books.* At the time of the transfer of the partnership to the corporation, entries were not made to show the transfer. The books of the partnership were centinued by the corporation. The only entries made with reference to the incorporation were a debit to Cash and a credit to Capital Owned for the $500,000 received from the sale of stock. You ascertain that at the time of its incorporation the assets of the partnership were $700,000 and its liabilities $300,000.

2. *Cash.* The principal source of cash is from the payment of accounts receivable. Small amounts are received daily from cash

sales to employes and local customers to whom retail sales are made as an accommodation. The cash received from accounts receivable is passed directly to the head bookkeeper who has charge of the cash records. He makes entries in the cash book from the remittances, after which they are deposited by him and a copy of the deposit slips sent to the vice-president who is acting treasurer. The cash received from cash sales is turned over to the petty cashier, who makes disbursements for petty expenses from it. Whenever the cash in his possession exceeds $100.00, he returns the excess to the head bookkeeper, who deposits it.

3. *Sales.* The sales are recorded individually in the sales record, the entry being made from the original invoice which is mailed to the customer after the entry is made. The business sells four distinct products, but no classification of sales is maintained.

4. *Purchases.* The invoices received from creditors are pasted in a blank page record from which posting are made to the general ledger. No classification of purchases is maintained.

5. *Accounts Receivable.* The accounts receivable are kept in the ledger and no controlling account is maintained. The debit postings to these accounts are made from the sales record at the end of the month. The credit postings are made from the cash record at the end of the month. The customers' statements are copied from the ledger accounts after the monthly Trial Balance is obtained.

6. *Accounts Payable.* The accounts payable are kept in the general ledger and no controlling account is maintained. The debit postings to these are made from the cash record at the end of the month. The credit postings are made from the purchases record at the end of the month.

7. *Credits and Collections.* The credits are handled by the sales manager. He relies largely upon the ratings of the mercantile agencies and the ledger record of the customer. When passing on a customer's order he personally inspects the customer's account in the general ledger.

The collections are handled by the head bookkeeper, who goes through the ledger accounts once each month and selects the delinquents to whom he thinks a request for payment should be sent.

8. *Inventory Record.* No record is maintained of raw materials or finished stock except the general ledger accounts. At the end of the year an inventory is taken of raw materials,, work in process and finished goods, and these inventories are used as the basis of closing the accounts.

9. *Financial Statements.* A Trial Balance is prepared monthly, but a Balance Sheet and a Statement of Profit and Loss is prepared but once a year.

Instructions: Write a report to the president or the company discussing each of the foregoing topics. In each case state why the present method is unsatisfactory and explain fully the changes which should be made. In each case where you suggest the use of a new form of record, illustrate the form you recommend for use.

CHAPTER LXIX

MECHANICAL ACCOUNTING

The Meaning of "Mechanical Accounting"

The term *mechanical accounting* is new in the literature of accounting but well established in business usage. Salesmen of bookkeeping, billing, and calculating machines coined this term and have used it for years to indicate the use of machines for making bookkeeping and satistical records. The word *mechanical* in this term is justified in the sense that some part of the accounting work is done by the aid of machines. In a wider sense, this word is apt, as the purpose in using machines is to supplement human effort by mechanical processes. Office managers regard the reduction of the separate records of thousands of individual transactions to compact Statements of Profit and Loss, Statistical Reports and Balance Sheets, as equivalent to a manufacturing process subject to all the general principles followed in large scale production, including subdivision of labor, and the use of mechanical processes of all kinds. The word *accounting* in this term is used in default of any other word which covers the wide range of work so commonly done by adding, billing, posting, calculating, and statistical machines. Moreover, this word can be justified here as referring to a system for making or preparing accounting records. So the term mechanical accounting is used here in the sense of indicating the methods and organization necessary in managing that part of the accounting work which can be done by machines.

Why Machines are Used

Machines are used in accounting and statistical work because of the increased accuracy, larger output, and uniform legibility in the records produced. An experienced typist can write all day with perfect legibility and uniformity at twice the rate which can be maintained by the most expert penman, even though legibility and uniformity are disregarded by the latter. An office boy can copy, print, and add on an adding machine more rapidly, legibly, and accurately than the most expert accountant can copy the same figures with a pencil. A calculating machine operator can frequently have the answer to a complicated calculation before a mathematician can finish writing the problem. As most machines used in accounting work are but modified adding, typewriting, or calculating machines, the unvarying mechanical accuracy in computation, greater output, and uniform legibility of written work made possible through the use of these basic machines are realized also in mechanical accounting work.

However, to date, no entirely automatic machines for mechanical accounting work have been invented. For all the machines now in use, operators are required to adjust and set up the mechanism, to select and copy the work, to strike the keys and operating bars, or to insert and remove the record sheets at the proper time. Errors in doing any or all of these acts are possible. Obviously, if the wrong keys are depressed in an adding machine, the total will not be right; if the proper adjustments are not made, no machine will work properly; if the proper paper is not copied correctly, the record will be useless. The devisers of mechanical accounting machines have recognized that these errors will be made, but they have developed safe guards to such an extent that mechanical accounting is practically error-proof. Not that errors are not made, but that an error, when made, is detected so soon that no harm is done. This increased accuracy, especially desirable where large volumes of detailed work must be handled, is the great contribution of machines to modern accounting work.

Errors in Mechanical Accounting

Errors when using an accounting machine may arise from either (1) improper operation or adjustment of the machine, or (2) inaccurate copying. The skill of the operator and the simplicity of the operating process must be relied upon to prevent the mechanical errors. But inaccurate copying must be prevented and detected by some more positive means.

Errors in copying figures which are most frequent and troublesome in ordinary accounting work are the most easily detected when machines are used. The frequency of errors in so common a task as copying a column of figures for adding shows the necessity for checking even the simplest of copying work. This checking is best done by having another person compare the new list with the original figures. Such an independent check is always the most reliable, and is used whenever possible. If another clerk is not available, the operator checks his own work, either by direct comparison or by making a second list. In both of these methods there is a strong likelihood that the original error will be repeated, especially where the first error was due to misreading a number. The important point is to see that a check is always provided upon all work copied, particularly where figures have been copied.

In studying any accounting machine, special attention must be given to the facilities provided for preventing or detecting errors in copying. This is the most vital point in any machine, for unless practically error-proof work is produced, the machine has failed in its most important contribution. The methods used in correcting an error, when made, must be noted also.

What Machines Are Used

The machines most widely used in mechanical accounting practice can be classified under the following heads:

1. Auxiliary machines, such as
   - (a) Adding machines;
   - (b) Calculating machines.
2. Modified listing-adding machines, such as the
   - (a) Burroughs Ledger Posting Machine.
3. Modified typewriting machines, such as the
   - (a) Elliott-Fisher Bookkeeping Machine;
   - (b) Remington Accounting Machine;
   - (c) Underwood Bookkeeping Machine.
4. Tabulating machines, such as the
   - (a) Hollerith Tabulating Machine.
   - (b) Powers Accounting Machine.

The principal machines for mechanical accounting are manufactured by the following companies: Burroughs Adding Machine Co., Detroit, Mich.; Comptometer Co., Chicago, Ill.; Monroe Calculating Machine Co., Orange, N. J.; Moon Hopkins Billing Machine Co., St. Louis, Mo.; Wales Adding Machine Co., Wilkes Barre, Pa.; Elliott-Fisher Billing Machine Co., Harrisburg, Pa.; Addressograph Co., Chicago, Ill.; Remington Typewriter Co., New York City, N. Y.; Underwood Typewriter Co., New York City, N. Y.; The Tabulating Machine Co., New York City, N. Y.

If the instructor has available any one or all of these machines, it will be well to study each of them in connection with the literature provided by the manufacturer of the machine. If the machines are not available, it will be well to ask the representatives of the various companies to demonstrate the machines, or to write to the above-named concerns for descriptive literature showing the use of their machines and their advantage to the work in the accounting department.

It is the purpose of the publishers of this text to later provide a supplement giving the desired class instruction in the use of the various machines. This supplement will either be published separate from the text or as an appendix.

Purposes for which Machines are Used

The purposes for which machines are used may be classified as follows:

1. Adding.
2. Calculation or Computation.
3. Preparation of Accounting and Statistical Statements.
4. Preparation of Accounting Records.
5. Statistical Analysis.

The first two of these purposes will be discussed very briefly. The latter three will be discussed more in detail.

Adding Machines

Adding machines are the oldest type of machines used in accounting work. They may be used to advantage in any case where it is necessary to obtain frequently the total of a series of numbers. The simple type of adding machine is used only for the purpose of arriving at totals to be entered into records or to check the accuracy of totals shown in the records. The modified adding machines serve other purposes, as explained below.

Calculating and Computing Machines

Most of the so-called *adding* machines are now equipped to perform the other mathematical calculations of subtraction, multiplication, and division. There are other machines which are particularly adapted to perform all kinds of calculations. The Comptometer is probably the best known of these. The purpose of these machines, like the simple type of the adding machines, is either to provide data which serves as a basis of records or to check the accuracy of data recorded in the records.

Preparation of Statements

Machines may be used to prepare various kinds of statements. Probably their most important use in this connection is in the preparation of customers' monthly statements of account, and these will be taken for purposes of illustration. The writing of customers' statements in a large wholesale office is a good example of the advantages resulting from using a machine for this purpose. The ac-

STATEMENT

WEINSTOCK-NICHOLS CO.

AUTOMOBILE ACCESSORIES

MAIN OFFICE
538 TO 546 GOLDEN GATE AVENUE
PHONE FRANKLIN 6062

SAN FRANCISCO ______________ 191__

All accounts due and payable 10th of the month following purchase.
Return this statement when making remittance.

M Renfro Speed-O-Meter Co.,

San Francisco, Calif.

BAL			
DEC	1	2.35	
JAN	1	45.75	
JAN	3	23.45	
	5	4.34	
	7	50.00	
	9	5.45	
	13	4.00	
	15	50.00	
	17	4.55	
	19	5.06	
	21	3.00	
	25	100.00	
	26	30.00	
	28	.45	
	29	100.00	
	31	3.45	
	30	54.00	
			485.85 s
DIS			
JAN	3	3.00 -	
	6	4.55 -	
	9	5.45 -	
	12	4.00 -	
	15	10.00 -	
		BAL	458.85 *

Illustration No. 1039—Statement Prepared on a Bookkeeping Machine companying form (Illustration No. 139) shows a statement as written on a bookkeeping machine. The body of this statement contains all the items likely to occur in a statement of this kind. Writing such a statement requires but a simple copying of items from a ledger and computing the balance. The machine is used to print automatically dates, descriptions and amounts, add the amounts exactly as written, and to find the real balance. It works more accurately, more quickly, and produces a more legible and uniform product than any clerk. There is also a by-product to this process which is extremely valuable in itself. The balance of each account as mechanically computed by the machine is used in an audit of the balance of that account as figured in the ledger. This audit is made by having a clerk compare the amounts and balance on the statement with the corresponding items and balance in the ledger. Thus the work of the ledger clerk in posting, balancing, and writing the statement is checked before the statements are sent to the credit department or the mail-room. Sometimes such a statement balance is used to save the labor of separately computing the ledger balances.

It is well to note that if a bookkeeping machine of the typewriter family had been used for this work, the heading and address also could have been written at the one insertion. In large offices, statements are often headed on an addressograph or by ledger clerks in spare moments during the month.

Preparation of Accounting Records

Machines may be used in various ways in the making of accounting records. Any part of the accounting records may be made by machines, but it is in connection with the construction of the ledger record that they are used most extensively. Wherever numerous accounts are to be kept to which frequent entries are made, machines may be used to advantage. They are used most frequently in the preparation of (a) the accounts receivable ledger; (b) the balance of stores records. The accounts receivable ledger will be taken as a means of illustrating their use in the preparation of ledger records.

Simple Ledger Posting

A ledger can be posted by a machine as readily as a monthly statement can be written, and with absolute accuracy. The ledger sheets are taken one at a time and the proper debit posting made on each in succession. When all the debits have been posted, the machine accumulator will show an absolutely correct total of the debits exactly as written on the ledger sheets. This total, when compared with the total of debits previously taken from the sales, cash, or general journals, will either agree, thus showing that the amounts were posted accurately, or will differ, thus showing that an error was made. Where posting runs are long, sub-totals are made at certain points when obtaining this predetermined total of items to be posted, and the machine reading at these points are compared. These sub-totals confine the search for errors to small zones and expedite the work of locating the particular error made. When posting to a sales ledger, merchandise debits, cash credits, merchandise returns, and sundry journal entries are posted in separate runs. The column stops of a posting machine are always arranged to stop the carriage only in the columns actually used when posting that run; thus the arrangement of the column stops and the writing position of the ledger page is different when posting debits from that used when posting credits. This provides a mechanical check to prevent entering debits as credits. The adding or subtracting action of the accumulators in each column is mechanically controlled at these columns also, so that the items posted are never subtracted when they should be added.

When machines are used, debits and credits are posted at separate runs for three reasons:

1. To keep totals from each source separate for checking purposes;
2. To get posted totals for making necessary control account entries;
3. To avoid posting debits in the credits column, or vice-versa.

Unit Posting Media

Machine ledger posting requires loose-leaf ledger equipment, having a separate page for each account. The pages in a sales, or customers', ledger naturally are arranged alphabetically or geographically, and, to save finding time, should be posted in the same order. But the entries in the bound journals can not conveniently be arranged to correspond with the ledger order, and to post from bound books containing entries not arranged in posting order takes too much time and increases the danger of omitting an item or posting to the wrong account. Loose-leaf posting media are, therefore, used in mechanical accounting. Sales are posted from duplicate invoices, cash credits from individual cash remittance slips, returned sales from credit memoranda, and supplementary entries from journal vouchers. Each of these papers contains the data for but a single entry, and so they are commonly referred to as "unit posting media."

These unit posting media are used to save time for the machine operator in another way. When posting sales, for instance, a clerk after finding the total of the duplicate invoices, without checking this total, places each duplicate so as to project as a marker, in front of the customer's account to which it is to be posted in the ledger. When this "stuffing" the ledger is finished, a predetermined total of the amounts on the invoices is made with sub-totals at places indicated by turning invoices or writing sub-totals on slips. If this total agrees with the previous total, there is little opportunity for error in misplacing, misreading, losing, or overlooking an invoice. However, these two totals, if both are made, must correspond before the ledger is ready for posting. This stuffing operation serves two purposes:

1. Time is saved for the machine operating clerk, as he does not have to hunt for the ledger sheets to be posted.

2. Two people have compared the names and addresses on the invoices with the names and addresses on the ledger sheets, to prevent errors in posting to the wrong account.

The clerk who stuffs the ledger can also head any ledger sheets needed for new accounts or second pages.

How Mechanical Posting Saves Time

A study of this explanation of sales ledger posting shows why mechanical posting is more accurate than hand posting. The three common errors in posting have been checked:

1. The machine total of items posted shows that the correct amounts have been posted.

2. The machine set-up has prevented any confusion in posting debits or credits as such.

3. Two clerks have compared each posting medium with each ledger heading to prevent posting to the wrong account.

The increased accuracy thus obtained more than offsets the loss of time involved in using the loose-leaf equipment.

In machine posting, the following operations in handling the loose-leaf ledger pages must be performed:

1. The proper page or account must be found;
2. The page must be removed from the binder, inserted in the machine, and fed to the proper writing point;
3. The item to be posted must be copied;
4. The page must be removed from the machine and replaced in the binder. As most postings consist of but a single item to an account at a time, it is obvious that the time consumed in actually copying or posting the item is small when compared with the time used in handling the ledger sheet. Hand posting in a bound book is quicker than machine postings, for there is less time consumed in handling the ledger pages. But the daily mechanical proof of accuracy possible with a machine means time saved at the end of the month, as all errors in posting amounts can be found on the day they are made. There is no necessity for waiting until the monthly trial balance to see if any errors have been made and no hunting through a whole month's posting to find those made.

QUESTIONS FOR CLASS DISCUSSION

1

Why must a presentation of mechanical accounting include accounting practices, office management and routine, as well as machine operations?

2

Define each of the following terms: listing, shifting, predetermined total, posting medium, unit posting media, posting run, binder, heading ledger sheet, pick-up, control account, journal vouchers.

3

What are the three common errors in posting? How are these errors guarded against when accounting machines are used?

4

If an operator is required for an accounting machine, how can the machine be a means of saving salaries?

5

If an extra clerk to run predetermined totals, stuff and help check is needed for every three operators, how can the machines result in a saving?

6

Should an extra clerk be used for the auxiliary work? Why not let the operators do this work themselves?

7

Is a saving in labor cost the only advantage of using an accounting machine?

8

If all errors are not prevented when using a machine, why use a machine at all?

9

Must there be a separate ledger sheet for each account opened?

10

Why should checking of an adding machine list made by one person be done by another?

11

Why should all adding machine lists be checked?

12

Explain what could cause a difference between a predetermined total and the posting total.

13

Many firms check cash remittances against the ledger balances to check correctness of a remittance, such as mistakes in taking discount, or gross of an invoice. This checking should be done before the posting of these items is done. When and how can this work be best done?

14

What is done with the duplicate invoices after the posting is completed?

15

Name the major classes of machines which are used in accounting work.

16

State the purposes for which machines may be used.

17

In connection with the preparation of what accounting records are machines used most extensively?

18

What benefit is derived from the use of unit posting media? Give illustrations.

19

State the operations which must be performed in posting to ledger records when machines are used.

20

Since these operations are more than are involved in hand posting, why are machines used?

LABORATORY MATERIAL

No laboratory exercises are given for this chapter for two reasons:

1. The only exercises which would illustrate the subject matter of the chapter would involve the use of machines, and many schools have no machines available for use.

2. Any exercises prepared would have to be made to apply to a certain kind of a machine and to certain kind of records. The instructors using the text would probably not have available these particular machines and records.

It is suggested that the instructor should do one or both of the following:

1. If any of the machines in ordinary use are available, their operation should be explained and their use in the solution of simple problems illustrated. If the students are not too numerous, the instructor may well require each of them to master the operation of each machine which is available.

2. Have local representatives of the various companies demonstrate their machines to students. After mastering Chapters LXIX and LXX, the student should be able to obtain much value from such a demonstration. The students should be urged to ask questions with reference to significant features of machines. The instructor can help make the demonstration more worth while by suggesting what he desires the demonstrator to show and explain. Be sure that students understand not only the technical operations of the machines, but also their relation to the accounting system as a whole.

CHAPTER LXX

MECHANICAL ACCOUNTING—Continued

Balance Ledger Posting

In many offices the balance of each customer's account is examined so often by the credit department, and others, that to have the balance computed each time a posting is made is considered worth while. Figuring such balances involve only adding and subtracting, so that accounting machines are especially suited to this kind of posting. The posting process in this work requires that the new item posted be added to or subtracted from the old balance, according as the item is a debit or credit, and as the old balance is a debit or credit balance.

The accompanying illustration, Illustration No. 140, of a sales ledger page, with extended balance column as posted on a machine, is worth detailed study. On January 1st, there was a debit balance of $45.07 shown in the "Balance" column. On January 3rd, a debit item of $8.92 was to be entered. To do this the machine operator inserted the ledger sheet in the machine and fed it to the correct writing point. Then he copied the old balance shown in the "Balance" column, the machine printing in the "Proof" column the amount set up, and retaining the amount in its accumulator. The ledger sheet was then automatically moved so that the "Debits" column was under the printing mechanism and the debit item was copied. This was automatically printed and added to the old balance by the machine. The ledger sheet was then automatically moved so the "Balance" column was under the printing mechanism and the new balance written. Writing the new balance left the balance totaling mechanism clear for balancing the next account. After removing this ledger sheet, the operator took the next one to be posted and so on for that day's run. On January 7th, this operation was repeated on this sheet, using the proper amounts when the debit of $34.01 was posted.

On January 18th a cash credit of $44.17 was posted. This time, after the old balance had been picked up and printed in the "Proof" column, the carriage was automatically shifted to the "Credits" column and the amount of the credit copied. This amount was

SHEET NO. 1

RATING Fair NAME Jos. Howat

TERMS 30 days net ADDRESS 520 Arch Street

CREDIT LIMIT $100.00

	PROOF	DATE	MEMO.	DEBITS	✓	DATE	MEMO.	CREDITS	✓	BALANCE
BROUGHT FORWARD								JAN	1	45.07
	45.07	JAN 3		8.92	✓					53.99*
	53.99	JAN 7		34.01	✓					88.00*
	88.00					JAN 18	CCH	44.17-	✓	43.83*
	43.83					JAN 10	C/M	1.76-	✓	42.07*
	42.07					JAN 31	CSH	42.07-	✓	.00*
		JAN 25		29.80						29.80*
	29.80	JAN 28	J/E	7.55	✓					37.35*
	37.35					JAN 28	RET	37.93-		.58CB
	.58-	FEB 2		45.10						44.52*
	44.52					FEB 10	CSH	7.55-	✓	36.97*

Illustration No. 1040—Sales Ledger Sheet mechanically subtracted from the old balance already in the accumulator and the difference was written as the new balance in the "Balance" column. Later in the day, when the credit memoranda were posted, another credit entry of $1.76 was posted to this account.

The payment of January 21st balanced the account, the "Balance" column showing no balance. The amount of the return credited on January 28th was larger than the old debit balance, and a credit balance resulted. The credit balance is indicated by the letters "C.B." written immediately after it. On February 2nd, when a debit of $45.10 was to be posted, the old credit balance was picked up as a subtract quantity and the new balance then represented the difference between the two amounts.

Proving Balance Ledger Posting

A review of the operations performed in posting when extending all balances, shows that two copying operations were necessary:

1. Copying the old balances from the ledger sheets.
2. Copying the amounts to be posted.

Proving the accuracy of both of these copying operations is necessary as both amounts affect the new balances as calculated and written. In the preceding chapter it has been explained that the accuracy in copying, the amounts posted can be proved by obtaining a predetermined total of these items from the unit posting media or record of original entry from which they are posted, and comparing this predetermined total with the total shown by the posting machine after the items are entered in it. The same method may be used in proving the accuracy in copying the old balance. A predetermined total is obtained by listing and adding the old balances, as shown by the ledger record, and comparing this predetermined total with the total shown by the machine after the old balances have been entered in it. This is the method commonly used.

The modified typewriting machines with their multiple accumulators readily total the items posted and the old balances picked up, while the master, or cross-footing, accumulator computes the new balances for each account. Sub-total readings of items posted or old balances picked up can be compared at any time.

Several ingenious methods have been devised to save the labor of totalling the old balances picked up, but none of them are as reliable as the predetermined total method. Some machines are equipped with a totalizer for adding the new balances as written, as well as the items posted and the old balances picked up. However, this affords no check upon the accuracy of picking up the old balance. The total of the new balances as copied, it is true, is equal to the sum of the amounts in the old balance and the debit registers, but that does not show that the sum in the old balance register is correct. This method does not prove the old balances were copied correctly, but only that the cross-footing mechanism was added correctly. The accompanying form, Illustration No. 141, shows a ledger page on which the old balance was picked up and written twice, once as a "Proving Balance" and once as on "Old Balance." The two registers totaling these columns should show identical totals when the posting to each account is completed. This method assumes that the same error in reading or writing the old balances will not be repeated, even though the two copyings occur within a few seconds of each other. Writing the figures which intervene between the two copyings is expected to obliterate any tendency to repeat the same error. Of course, the second copying must be done from the "Balance" column, and not from the figures just written. The two copies of the old balance are always on the same sheet for comparison and checking purposes. Obviously, if the same error is made in both pick-ups, this method will not detect the error. Further, it represents no saving of time over the predetermined total methods.

Control in Mechanical Posting

In a business which has a large volume of sales there may be several thousand customers with a corresponding number of accounts receivable. In this case there will be a control account in the general ledger which shows the total accounts receivable. The individual accounts will be maintained in a number of subsidiary ledgers or binders. If two or more machine operators are required to maintain the subsidiary ledgers, it is customary to separate these ledgers into divisions or sections and give each operator a certain number for which he is responsible. It is highly important that the subsidiary ledgers shall at all times be in agreement with the control account in the general ledger. To facilitate the maintenance of this agreement it is customary to establish a means of determining a daily proof of the following:

1. Individual ledger posting.
2. Ledger section posting.
3. General ledger control account figures.

NAME GEO S HOFFMAN CO ACCOUNT NO. 1

ADDRESS 171 BROADWAY NEW YORK CITY LEDGER A TO K

PROVING BALANCE	FOLIO	DATE	ITEMS	DEBITS	CREDITS	OLD BALANCE	BALANCE
		1917 DEC 1	BROUGHT FOR'D				124 50
124 50	2512	4	MDSE	67 40		124 50	191 90**
191 90	2518	7		128 60		191 90	320 50**
320 50	424	14	CASH		124 50	320 50	196 00**
196 00	2532	22	MDSE	14 80		196 00	210 80**

Illustration No. 1041—Sales Ledger Sheet

DAILY PROOF OF POSTINGS BY CONTROLS

MONTH OF LEDGER SECTION O K.'D BY

DATE	OPERATOR	POSTING MEDIUM	CREDITS	DEBITS	PERPETUAL BALANCE NEW	PERPETUAL BALANCE OLD

Illustration No. 1042—Control Sheet

To obtain such a daily proof it is necessary to have a control record system. To show how such a system is operated, the control scheme in a typical office will be explained.

Assume that a firm has twenty thousand accounts in its accounts receivable ledger divided among thirty binders. Three machine operators are required to maintain these ledgers, and each operator has charge of a ledger division of ten binders. For each binder there is an individual binder control sheet in the form of Illustration No. 142, which is kept in the front of the binder. This sheet shows the total of all the balances in that binder at the close of the last run posted in it. This total is obtained each time by picking up the old total of balances, adding to or subtracting from it the total of all items posted during that run and extending the balance in just the same way as each individual account in the binder was posted and the balance extended. This sheet thus contains a total of debits and also of credits classified according to sources as posted at each run. There may be but one daily run of posting to a binder, there may be more than one, or there may be but one run in several days, but the control sheet shows the amount posted at each run. These totals, of course, must agree with the totals obtained directly from the posting media as shown by the predetermined total. Hence the control. This binder control sheet total of balances is the figure used when taking a trial balance of the binder. Taking a trial balance requires merely totalling all the balances in the binder and comparing this total with the binder control sheet balance of customer's balances.

Each operator has also a ledger division control sheet identical in form with the individual binder control sheet. This division control sheet has the same relation to the ten binders in the division as the individual binder control sheet has to the individual accounts in the binder. This sheet always shows the total of all balances in all ten binders at the close of the last day on which any posting was completed and also daily totals of debits and of credits classified as to sources. These totals are obtained by adding the totals on the individual binder control sheets and posting them on the division control sheet at the close of each day's posting after the totals are accepted as correct by the head bookkeeper.

The head bookkeeper has what amounts to duplicates of these three division control sheets and one accounts receivable control sheet in the general ledger which shows the total of balances in all three division control sheets, and thus a total of all customers' balances in the thirty binders. This control account balance is brought up to date at intervals, the posting data being obtained from a journal voucher which summarizes the daily total of debits and credits from the three division control sheets held by the head bookkeeper.

In an office where the duplicate invoices for posting come direct from the billing department or auditing department without being totaled or analyzed in any way, the first step taken in the bookkeeping department is to get a total of each "batch" sent in. This total is reported to the head bookkeeper to be recorded on his master control sheet. Each batch is then separated into ledger divisions and a total obtained for each division. This total of the ledger division totals must agree with the batch total. The division totals constitute the head bookkeeper's control over the machine operators, for the results of their posting must agree with the division total held by him. The separate division lots are then sorted into binder sections and the binders stuffed, and a binder total taken with abundant subtotals. The ten binder totals must agree with the division total. When they do, the binder is ready for posting. After a binder is posted and the amounts posted checked with the predetermined total for that binder, the individual binder control sheet is posted. After all the binders and the binder control sheets have been posted, a division total of the items posted is run and submitted to the head bookkeeper. This total should agree with the division total previously reported to him, and thus he knows whether the posting was correct or whether an error has been made. The division control sheet is not posted until the head bookkeeper accepts the total submitted as correct.

The methods of handling credit postings and controlling them are identical with those for handling debit postings. The batch total of cash remittance slips probably accompanies the slips, though usually the bookkeeping department chooses to run its own total of all items sent in. The subdivision of these batches into binder sections and the succeeding operations are identical, whether cash, return sales, purchase invoices, return purchases, or remittances are to be posted.

If the ledgers are arranged upon a geographical basis, then the sorting is on this same basis, though the auditing or sales department has probably done this work; but the control figures are obtained in the same way and the head bookkeeper has an independently derived total to check against the reports from the machine operators. In some offices the head bookkeeper chooses to hold the totals for each binder. In that case the individual binder control sheet is not posted until the total has been accepted by the head bookkeeper for the figures he holds are not usually given to the machine operators.

The predetermined totals in some offices are run upon an ordinary adding machine tape, but such tapes are not usually labeled and are not convenient for handling or storing. A better plan is to run all amounts which may enter into the posting upon sheets which can be kept until any necessary checking has been done. When such sheets are used the proof runs are made beside the predetermined runs to simplify checking.

Summary of Accounts Receivable Control

The Burroughs Adding Machine Co., Detroit, Mich., publishes a circular which summarizes the preceding discussion. The instructor should write the Burroughs Adding Machine Co. for form No. 5628. This form not only shows the process of posting from the various posting media, but also the relation of each amount posted to the daily proof of posting sales and the master control sheet.

Statistical Analysis

In modern business management it has been found desirable to have statistical data to use as a basis for judging past operations and for planning future operations. To obtain this data in the desired form it is necessary to collect, classify and summarize information. In recent years it has been found to be economical to use machines for this purpose. The most widely used of these machines are known as *tabulating* machines. In the following discussion one type of tabulating machine will be discussed.

Equipment Necessary for Tabulating Work

To perform tabulating work it is necessary to have the following: (1) Tabulating card, (2) Key punch, (3) Sorter, (4) Tabulator. Each of these will be discussed briefly.

Tabulating Card

The tabulating card can be ruled to show a variety of information. A tabulating card ruled to use in making a classification of sales would contain columnar headings showing the different classes of information with reference to sales which it is desired to obtain. The method of showing the analysis within each class is explained in the discussion of the next topic.

The tabulating card must be of uniform size, but it can be ruled in a variety of ways so as to show the particular information desired with reference to the analysis for which it is used.

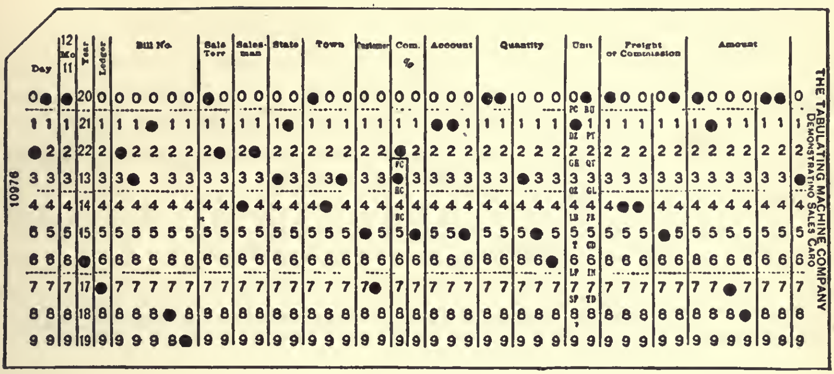

Illustration No. 143—Tabulating Card

The Key Punch

The information desired on the tabulating card is recorded by placing the card in a Key Punch, and punching in each column the numbers which designate the information to be recorded. For instance, it may be desired to show that the sale which is being recorded was made by James Brown to whom has been assigned the number "21." In this case, "21" will be punched in the column headed "salesman." In the same manner in each column the numbers will be punched which refer to the item of information which it is desired to record. The information recorded on the cards can be obtained from invoices or any other voucher or record which provides the necessary data.

The Sorter

As the cards are punched they are filed away. At the end of the period of time for which the data is being collected, usually one month, the cards are run through a Sorter. The cards are fed into the sorter by the operator and it sorts them according to one of the classifications shown by the columnar headings on the cards. For instance, the machine may be set to sort the cards by salesmen. In this case the cards will be assembled by salesmen so that when the process is completed all the cards showing sales by each respective salesmen will be in a separate group. For instance, the cards which have been punched to show "21," the number of James Brown, will be in one group and the cards which have been punched to show "25," the number of Henry Jones, will be in another group, etc.

The Tabulator

After the cards are sorted, they are run through the tabulator and the total of each group obtained. To illustrate, if they have been sorted by salesmen, they will be run through the tabulator to determine the sales of each salesmen. In the same manner they are sorted and tabulated, for each class of information shown by the columnar headings on the tabulating card.

Analyses for Which Tabulating Machines Are Used

Some of the most important analyses made by tabulating machines are: Sales, Purchases, Labor, Materials, Production, Sales Possibilities, Inventory, Expense.

Although these are the most important analyses which are usually made by the industrial and commercial firm, tabulating equipment can be used for an indefinite variety of purposes.

Advantages of Tabulating Equipment

The advantages derived from the use of tabulating equipment may be stated briefly as follows: (1) Accuracy, (2) Speed, (3) Economy.

The only chance for error in the tabulating process is in the punching of the cards. This is a comparatively simple process and an efficient operator rarely makes errors. Much greater accuracy can be obtained, therefore, by the use of the machine than when tabulating work is done by hand.

Speed is essentially a vital factor in securing important data. for if figures are not available for use when desired, their value is greatly diminished. Statistics can be classified and summarized much more rapidly by machines than by hand. The Sorting Machine separates punched holes at the rate of 250 cards per minute and the Tabulator adds from one to five amounts at the rate of 150 per minute for each counter, or an aggregate of 750 amounts per minute for all counters combined.

Good business demands economy. Lost time is an expense. Tabulating machines not only facilitate the gathering of information, but gather it at a minimum of cost. Time studies have shown that whenever more than two classifications of information is desired, it is more rapid and economical to use tabulating equipment. This is on the assumption that a sufficient quantity of data is to be handled to prevent the overhead charges involved in the use of machines from being excessive.

QUESTIONS FOR CLASS DISCUSSION

1

Explain the meaning of "balance ledger" posting.

2

Why is the "balance ledger" desirable?

3

Assuming figures, illustrate how such a ledger operates.

4

In what ways may errors occur in balance ledger posting?

5

Explain the methods which may be employed to detect each of these errors.

6

What objection may be offered to the "predetermined total of old balances check" as a means of determining the accuracy of the pick-up of the old balances?

7

Explain the organization of the accounts receivable records where there are several thousand accounts receivable accounts.

8

What control is necessary to exercise an effective check over such an organization?

9

Explain how an effective control may be exercised over the various vouchers which are received by the Accounts Receivable Section from the various other departments and sections.

10

In what ways may the accounts in the accounts receivable ledgers be classified?

11

Explain how these two methods may be combined.

12

What objections may be offered to running the predetermined totals on adding machine tape?

13

In what way does the head bookkeeper obtain the entries for posting to the Accounts Receivable account in the general ledger?

14

Why are tabulating machines desirable?

15

Explain the use of the following: tabulating card, key punch, sorter, tabulator.

16

When are the tabulating cards punched? How is the information obtained which is recorded on the card?

17

State a number of purposes for which tabulating equipment may be used.

18

State possible analyses which may be made of the following by use of tabulating equipment:

1. Purchases.
2. Sales.
3. Inventory.
4. Expenses.

19

State the advantages derived from the use of tabulating equipment.

20

State when its use may not be desirable.

LABORATORY MATERIAL

See discussion under this heading at the end of the previous chapter.

CHAPTER LXXI

ORGANIZATION FOR ACCOUNTING CONTROL

Need for Accounting Organization

The preceding chapters have emphasized the use of accounting information in business management. The management of a business necessitates the making of plans, the formulation of judgments and the issuing of instructions for procedure. Such plans, judgments and instructions, to be trustworthy, must be based on accurate and comprehensive information, and this information must be obtained in large part from the accounting and statistical records of the business. Not only must such records be kept, but the information which they contain must be analyzed, presented and interpreted, if proper judgments are to be made and proper action taken. That this may be accomplished, an organization must be set up on whom responsibility for its accomplishment can be placed. It is the purpose of this chapter to discuss the nature of this organization and the method by which it performs its task.

The Accounting Organization

The organization for accounting control in any particular business must depend to a considerable extent upon the size of the business and the nature of its operations. A typical organization for a large business is shown by Illustration No. 144.

In a small business there will not usually be a comptroller and the executive head of the accounting department may be termed the general auditor, the chief accountant, head of the accounting department, or similar name. In the small business there may not be as many separate and distinct sections or divisions as are indicated by the chart given in Illustration No. 144, but the duties performed by these sections must be performed by some one in the accounting department.

The Duties of the Comptroller

The comptroller is one of the principal executive officials of the business. He is usually elected by the board of directors and is answerable to them, although subject to the executive direction of the president. In some cases he is appointed by the president instead of

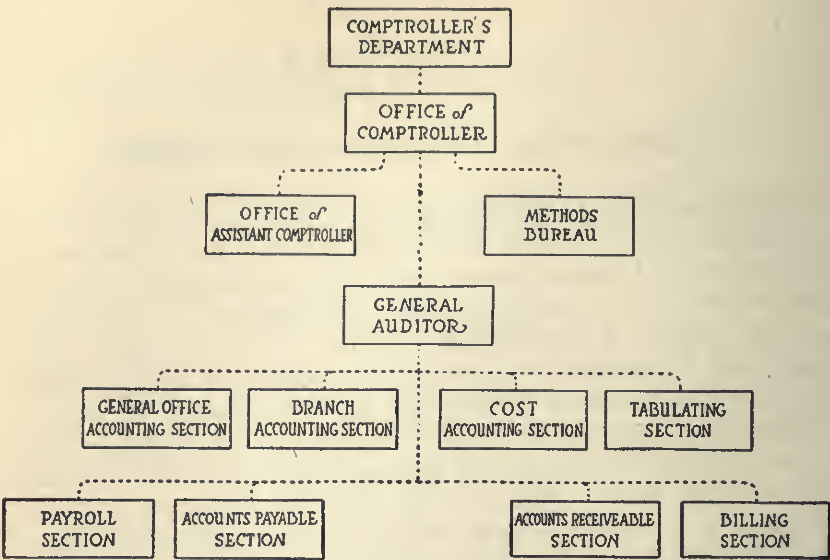

Illustration No. 144—Organization for Comptroller's Department

by the board of directors. That his work may be effective, he should have the same official standing as the executives in charge of sales, production and finance. Otherwise he is apt to have difficulty in obtaining the co-operation which is necessary for the successful accomplishment of his task.

The comptroller should be the final authority on accounting methods and procedure, but should not be directly responsible for the execution of these procedures. He should be held responsible for the interpretation of the accounting reports prepared and should submit recommendations based on these reports to the other executives of the company. He is responsible for the use of the accounts rather than for their construction.

The duties of the comptroller will vary, depending on the organization of the particular business. In some cases, in addition to performing the function of comptroller, he also performs the function of an auditor. In other cases the duties ordinarily performed by an auditor may be performed by an assistant comptroller.

The Staff of the Comptroller

The comptroller usually has a staff under his immediate control which assists him in the performance of his functions. The size of this staff and the functions which it performs are dependent on the size of the business and the jurisdiction of the comptroller. In some cases the comptroller has assistants who render aid in the interpretation of reports and the preparation of comments thereon. He may have assistants who devote their time to a study of methods and the preparation of orders putting into effect changes in methods which have been decided upon. Frequently such work is carried on by a "Methods Bureau," which recommends the adoption of new methods and supervises their installation after they are authorized.

Relation of the Comptroller to the General Auditor

In general terms, it is the function of the comptroller to *direct*, and the function of the general auditor to *perform*. In pursuance of this policy, the comptroller either outlines the classification of accounts and the supporting records which the company is to use, or approves those which have been prepared by the general auditor. The general auditor is responsible for the maintenance of the accounts and records after they have been authorized. The extent to which the comptroller exercises supervision over the work of the general auditor depends upon the size of the corporation and the extent of the duties of the comptroller.

The general auditor is responsible for the preparation of all the reports prepared from the accounting records. The comptroller may prescribe what these reports shall be and the form in which they are to be prepared, but the general auditor is responsible for their preparation. This includes all the reports which go to the various executives, as well as those which go to the board of directors. Usually the general auditor submits these reports to the comptroller for his approval before they are distributed. In some cases the comptroller maintains a record of all the reports to be prepared and of the parties who are to receive each report. In this case, the reports are approved by the comptroller and distributed by his office. This affords a central control of the distribution of reports.

The General Auditor

In every business there is some one who is vested with direct executive control of the accounting organization. The executive head of the accounting organization is known by various names. He may be called "general accountant," "plant accountant," "general auditor," or other similar title. In some cases, the comptroller of the company exercises direct and immediate supervision over the accounting department. This is not the true function of a comptroller, as has been explained in the foregoing discussion. The terminology of accounting is not exact and the titles employed to designate those employed in accounting work are not standardized. In the present discussion the term general auditor is used to refer to the accounting executive who is responsible for the proper keeping of the accounting records and the preparation of the necessary financial and statistical reports therefrom.

To perform properly his functions, the general auditor, acting in co-operation and under the direction of the comptroller, must accomplish the following:

1. Preparation of the reports which are necessary to present the desired information to the executive officers. The preparation of such reports is one of the most important tasks which the general auditor has to perform.
2. Preparation of a classification of accounts which will provide for a proper analysis and classification of the information which is to be presented by means of reports to the executives. Without such a classification of accounts, the collection of accurate and systematized data is impossible.
3. Preparation of a system of records which will serve as posting mediums to the accounts. Without such records it is impossible to collect and summarize effectively the information which is contained in the accounts.
4. Preparation of standard journal voucher forms which will serve as a means of summarizing details and of transferring these details from the one who is originally responsible for them to the one who is to make a summarized record of them.

The preparation of such reports, accounts, records and vouchers involves the entire accounting process. In other words, it involves the process from the time a transaction is performed until the effect of that transaction on the business is presented by means of a report to the executives of the company.

It is customary for the general auditor to organize the accounting department into sections, to each of which he delegates a certain part of the work under his jurisdiction. Typical sections are indicated in the outline given in Illustration No. 144. The duties of each of these sections will be discussed briefly.

General Office Accounting Section

The general office accounting section has control of the following:

1. The general ledger containing the accounts of the general office and controlling accounts for each of the branches or divisions of the company.

2. The books of record which serve as posting mediums to the general ledger.

3. The preparation of the periodical financial statements for the company.

4. The preparation of vouchers for all charges by the general office to the branches or other units of the the company. These charges may be for interest on investment of the company in the branch, for the branch's share of the overhead expenses of the general office, and similar items.

Branch and Intercompany Accounting Section

The branch and intercompany accounting section has control of the following:

1. The accounting records of each branch which are kept at the general office. The extent of these records depends upon the method of handling the branch accounts.

2. The preparation of financial reports for the branches. This is on the assumption that the branch ledgers are kept at the general office. If not, there is no necessity for a branch accounting section.

Cost Accounting Section

The cost accounting section has control of the following:

1. The cost accounting ledger containing all the accounts relating to factory operations.

2. The records of original entry which serve as posting mediums to the cost ledger.

3. The detailed cost sheets which show the costs of individual orders or jobs.

4. The preparation of the journal vouchers which summarize the operations for the month for the use of the general office accounting section.

5. The preparation of periodical expense analysis showing the departmental expenses of each of the production departments.

Tabulating Section

The tabulating section has control of the following:

1. The tabulating of sales invoices and purchase invoices to show any classification desired for control purposes. In making this tabulation, equipment of the nature described in Chapter LXX will be used.

2. The tabulating of material issues and labor tickets to show the classification desired for entry in cost records.

3. The preparation of reports showing the results of the tabulation performed in 1 and 2.

The Payroll Section

The payroll section has control of the following:

1. Pricing and extensions of all labor tickets.

2. Preparation of payroll for use of the cashier in paying employes.

Accounts Payable Section

The accounts payable section has control of the following:

1. The vouchering of all invoices payable.

2. The maintenance of the vouchers payable record which shows the voucher distribution.

3. The preparation of checks in payment of the vouchers due.

4. The maintenance of paid and unpaid voucher files.

5. The preparation of the record of cash disbursements.

6. The preparation of the journal vouchers which summarize the voucher distribution of the month for the use of the general office accounting section.

Accounts Receivable Section

The accounts receivable section has control of the following:

1. The accounts receivable ledger showing the accounts of the customers of the general office. If the accounts receivable of the branches are collected by the general office, the accounts receivable section will maintain an accounts receivable ledger for each branch.

2. The preparation of monthly statements for the use of the credit department and for sending to customers.

Billing Section

The billing section has control of the following:

1. The extension of all orders received from customers. If a separate pricing section is not maintained, the billing section will be required to enter the price on the order as well as make the extensions.
2. The preparation of all invoices sent to customers or to branches.

The Interrelation of Sections

It is not intended that the statement of the duties of the various sections which is given in the foregoing discussion should be regarded as an arbitrary one. It is obvious that each business must organize its accounting department to fit its particular needs. The foregoing discussion is intended to be suggestive only. The duties performed by the various sections are closely related and many of them can easily be shifted from one section to the other without difficulty.

It is necessary for some sections to obtain information from other sections in order to make their records. For instance, the general office accounting section must receive information from (a) the branch accounting section, (b) the cost accounting section, (c) the accounts payable section, (d) the billing section, and (e) the tabulating section, in order to make its records of original entry. In the same manner the cost accounting section must receive information from (a) the tabulating section, (b) the accounts payable section,

JOURNAL VOUCHER

No.........................

Prepared by......................... Date.........................

Approved by......................... Entered.........................

ACCOUNT AND EXPLANATION	GENERAL LEDGER				COST LEDGER			
	Dr.	√	Cr.	√	Dr.	√	Cr.	√

Illustration No. 145—Journal Voucher

and (c) the payroll section, in order to make its records of original entry. It is customary to transfer information between sections by means of standard journal vouchers. The form of such a voucher is shown in Illustration No. 145.

These vouchers can be filed in a loose-leaf binder by the section to which they are sent and used as posting mediums. Each voucher should have a number and a schedule should be prepared which shows the date on which it is to be transmitted. By this means an effective check can be maintained on the information which is necessary for the original records of each section.

QUESTIONS FOR CLASS DISCUSSION

1

Explain the relation between a well-organized accounting department and efficient business administration.

2

The comptroller is "responsible for the use of the accounts rather than for their construction." Explain.

3

What are the duties of the staff of the comptroller?

4

Explain the relation of the comptroller to the general auditor.

5

Classify the duties of the general auditor in terms of the accounting process over which he has jurisdiction.

6

The credit manager desires to know the promptness with which John Brown, a customer of the company, has paid his invoices. To which section of the accounting department will he apply for this information?

7

The treasurer desires to know the accounts payable falling due during the next week. From which section of the accounting department will he seek this information? How will this section obtain the information?

8

The sales manager desires to know the unit cost of certain items to use as a basis of quoting prices on these. From which section will he request this information? How will this section obtain it?

9

The X Company decides to transfer the branch ledgers from the general office to the branches. What effect will this have on the branch accounting section of the accounting department?

10

The sales manager desires to obtain the following information:

(a) Sales made by each salesman.
(b) Sales made in each state.
(c) Sales made of each commodity.

How will he obtain this information?

11

The cashier is responsible for paying the factory employes each week. How does he determine the amount due each employe?

12

The treasurer is responsible for signing all checks issued. Who is responsible for the preparation of these checks? How does the treasurer know that the checks are prepared for the proper amount?

13

How does the general office accounting section obtain the following:

(a) Its record of cash receipts?
(b) Its record of cash payments?
(c) Its record of purchases made?
(d) Its record of sales made?

14

How does the accounts receivable section obtain the follownig:

(a) The charges to each customer's account?
(b) The credits to each customer's account?

15

Explain and illustrate the relationship between the different sections of the accounting department. Explain how information is transferred from one section to another.

LABORATORY MATERIAL

Exercise No. 197

The Elliott Manufacturing Company has its factory and general offices at Chicago, Illinois. It has ten branches located in large cities. Its sales amount to $20,000,000 a year. You are employed to examine its accounting methods and to recommend such improvements as you think are necessary.

You find that the accounting department has gradually expanded from the time when the business was small without any definite plan or direction. The head of the accounting department has been employed by the company for many years, having been promoted from an inferior clerical position in the department. Out-of-date methods are employed by the department; there is a considerable duplication of work by different members of the department; much information of a useless nature is gathered by it, and much other information which it should provide is not obtained.

You determine that the following should be done:

1. A comptroller appointed who will be responsible for the accounting and statistical methods and procedures of the company.

2. That the comptroller should have:

   (a) A staff of assistants who will make a detailed study of the desirable accounting and statistical methods which should be adopted and to supervise the installation of those which are approved.

   (b) A general auditor who will be the responsible administrative head of the accounting department.

3. That the accounting department should be organized into the following sections:

   (a) General Office Accounting Section.
   (b) Branch Accounting Section.
   (c) Cost Accounting Section.
   (d) Tabulating Section.
   (e) Payroll Section.
   (f) Accounts Payable Section.
   (g) Accounts Receivable Section.
   (h) Billing Section.

4. That the branch ledgers should be maintained at the general office and the records of original entry at the branches.

Instructions: Write a report to the general manager of the company, stating your objections to the present accounting organization and methods and explaining the new organization which you recommend. State the duties which should be performed by the comptroller, his staff, the general auditor and each of the sections of the accounting department.

Exercise No. 198

Your recommendations to the Elliott Manufacturing Company are accepted, and the accounting department is organized in accordance therewith. The new organization is put into effect on January 1st. Among others, the following transactions are performed by the company during the month of January:

1. Sales by branches, $1,500,000.00.
   Customers are invoiced by the branches, goods shipped from branch inventories, and collections made by the branches.
2. Collections on account by branches, $1,230,000.00.
   Each branch has a working fund of $10,000.00, which is replenished by the general office. All collections are deposited to the credit of the general office.
3. Expenses paid by the branches, $120,000.00.
4. Merchandise shipped by the general office to the branches, $1,100,000.00.
   All merchandise is billed to the branches at cost.
5. Auto trucks purchased by the general office for the New York branch and paid for by the branch, $2,000.00.
6. Charged to the branches for the month by the general office for interest on investment, $18,000.00.
7. Charged to the branches by the general office for overhead expense at the general office, $10,000.00.
8. Sales made by the general office as shown by the billings of the billing section, $500,000.00. The billing section prepares invoices in triplicate. One is sent to the customer, one to the tabulating section, and one to the accounts receivable section.
9. Factory pay roll for the month, $100,000.00.
10. Accounts receivable collected by the general office, $400,000.00.
11. Purchases of raw materials by the general office, $300,000.00.

12. Raw materials requisitioned from stock for use in the factory, $350,000.00.
13. Cost of goods transferred from the factory to the finished goods room, $1,200.000.00.
14. General office expenses, $120.00. A voucher record is maintained by the company.
15. Machinery purchased by the general office for the factory, $25,000.00.
16. Accounts payable paid by the general office for the factory, $350,000.00. The factory accounts are maintained on the general ledger, but the detailed cost accounts are maintained by the cost accounting section.

Instructions: Explain in writing how each of these transactions will be handled by the Elliott Manufacturing Company, tracing the transaction from its origin until its effect is shown on the general ledger. In your explanation:

(a) State the section of the accounting department which will first have to deal with each transaction.

(b) State each section which will be affected by it and the manner in which it will be affected.

(c) State each ledger on which the transaction will be shown, and show in journal form the entry to be made on the ledger.

Each group of transactions, such as sales, purchases, etc., will be regarded as one transaction for the purpose of this problem.

CHAPTER LXXII

AUDITING

Relation of Auditing to Accounting

The preceding chapters have dealt with the construction of accounting records and the preparation and interpretation of accounting reports which are based on the accounting records. Accounting reports to be of value must be accurate, and in the designing and operating of accounting records every precaution should be taken to promote accuracy and to prevent errors. Experience has shown, however, that, regardless of the care exercised, errors are apt to occur. To reduce such errors to a minimum and to correct those which occur, it is expedient that a periodical verification of the accounting records be made. To prescribe the method and procedure by which this verification is to be made is the function of auditing. It can be seen, therefore, that accounting deals with the construction and maintenance of records and reports, while auditing deals with their verification.

In Chapter LXXI the organization and duties of the accounting department, which is responsible for the preparation and interpretation of accounting records and reports, has been discussed. It is the purpose of the present chapter to explain the duties of the auditor.

The Purpose of an Audit

The usual purpose of an audit is to verify the accuracy of accounting records and reports. In the process of verification any errors which may exist must be detected and corrected. In fact it is to guard against such errors that the audit is necessary. The errors which may be found in the accounting records and reports may be classified as follows:

1. Errors of principle.
2. Errors of omission.
3. Errors of fraud.

Usually the most important errors which the auditor finds are those due to a failure to follow correct accounting principles. Items of expense may be charged to capital accounts; merchandise inventory may be valued at an improper price; no depreciation on fixed assets may have been allowed; and accrued liabilities may have been ignored. These are but a few illustrations of the many errors which may arise from a lack of accounting and business knowledge on the part of those responsible for the accounting records. Usually the most useful service of the auditor is in the detection and correction of such errors so that the accounting records and reports will show the correct financial condition of the business.

Errors of omission are of two kinds: (a) failure to enter a transaction, and (b) failure to post. Errors of the first kind are difficult to detect unless the auditor makes a detailed audit and compares all vouchers with the books of original entry. The modern practice is to number the business vouchers of each class in consecutive order. For instance, the sales invoices, the purchases invoices, the checks which show disbursements are each numbered consecutively. By noting the numbers shown in the books of original entry, the auditor can detect the missing of any voucher and by this means may detect the failure to make necessary entries. If a posting is omitted, this will be reflected in the Trial Balance unless both sides of the transaction is omitted, in which case the equilibrium of the Trial Balance will not be disturbed. It is not the purpose of the present discussion to deal with the method of procedure by which the auditor accomplishes his task, but only to indicate the nature of this task, and to detect all errors of omission is one phase of it.

Errors of fraud are due to the efforts of an employe or executive to wrongly state the financial condition of the business for one of two reasons: (a) to hide defalcations on the part of the employe or executive, or (b) to mislead those to whom the accounting reports are to go. If an employe is guilty of theft of cash or merchandise, and has access to the accounting records, he may seek to hide his theft by falsifiyng the records. Executives of the company may desire to misstate the financial condition of the business to mislead the directors and stockholders, creditors, prospective purchasers, or governmental agencies. Since the imposition of high rates of income tax, there has been a strong temptation for business firms to understate their earnings. It is the duty of the auditor to detect all attempts to state the financial condition erroneously for fraudulent purposes. In the early development of auditing the detection of fraud was regarded as its chief function, but with the modern development of accounting records and the improved methods of "internal check," the possibility of fraud has been decreased and the importance of this phase of the auditor's duties has been minimized.

Kinds of Audits

The kinds of audits which under current practice are performed may be classified as follows:

(a) Balance Sheet Audit.
(b) Detailed Audit.
(c) Investigations.

The purpose of a Balance Sheet audit is to verify the accuracy of the financial condition of the business at a particular time as shown by the Balance Sheet prepared as of that date. In performing a Balance Sheet audit, the auditor is not concerned with what the financial condition of the business *ought* to be, but only with what it *is* on this date. Consequently he is not responsible for the detection of theft or fraud which may have been committed, so long as the assets, liabilities, and proprietorship are correctly stated. For instance, hundreds of dollars in the form of cash may have been stolen during the year, but the auditor performing a Balance Sheet audit is responsible only for seeing that the cash shown on the Balance Sheet at the end of the year is actually on hand. Although the auditor is not responsible for detecting errors which may have occurred during the past, he should assume such responsibility to the extent of watching for them in the course of the verification of the assets and liabilities and should bring any which he discovers to the attention of his client.

A detailed audit comprises a complete examination of all the records, necessary documents and supporting vouchers of a business organization. It contemplates the detection of all errors of principle, omission or fraud which have been committed. It is not within the province of this discussion to explain the method by which a detailed audit is performed. For such a discussion the student is referred to the standard works on auditing.

An investigation comprises the verification of certain facts which are needed for some particular purpose. For instance, it may be desired to determine the earnings of a company for a certain period of time to serve as a basis for the calculation of the goodwill of a business which is being sold. The accuracy of the cash records may be desired at the time a cashier or treasurer is resigning or is suspected of a misappropriation of funds. The accuracy of the expenditures for repairs may be desired for the preparation of an income report to the national government. For various other reasons it may be desirable to know the accuracy of certain information, and the auditor may be required to do whatever is necessary to establish the accuracy of the information which he is asked to verify.

Responsibility for Auditing

The foregoing discussion states in a general way the purpose of auditing and the duties of the auditor. Some businesses retain a permanent auditing staff which performs the auditing function. Railroads employ traveling auditors who audit the accounts of the agent at each station. This consists primarily in the verification of the tickets and cash held by the agent. Many businesses which have branches employ traveling auditors who audit the records of the branches. In some cases the general auditor or comptroller has a member of his staff perform auditing work. Members of the firm's organization may render a useful service by doing auditing work as a means of providing a current check on the operations of employes. This is especially true in a large business where the volume of the transactions is large and where there are members of the accounting organization who are not responsible for the operation of the accounting records. In a small business it is not profitable to maintain an auditor permanently, since the volume of operations are too small to occupy his time. In any case it is desirable to have the financial statements which are presented to stockholders, merchandise creditors, and bankers verified by some disinterested party who is not connected in any way with the business. This is accomplished by having an audit performed by a professional auditor and accountant.

The Professional Auditor and Accountant

The professional auditor and accountant offers his services to the public in much the same manner as the physician and lawyer offer theirs. One important distinction is that a large part of the services of the lawyer, and practically all of the services of the physician are rendered to individuals, while the service of the auditor and accountant is rendered to business firms.

In the early development of public accounting, the chief function of the public auditor and accountant was to do auditing work. For this reason he was termed an *auditor*. In later years his work has broadened until the services which he renders are of a varied nature. The installation of accounting systems, the preparation of income tax returns, the installation of systems of budgetary control, the preparation of reports for the use of executives, and the giving of counsel and advice with reference to business organization and management are some of the important activities in which the present-day accountant participates. No doubt in the years to come the scope of his services will broaden, and he will continue to become less of an auditor in the narrow sense of that term, and become more of an accountant and business counselor.

The Certified Public Accountant

Because of the importance of the work performed by the public accountant and the confidential relation which he bears to his client, it has long been regarded desirable to have some means by which the business public could judge his ability. To accomplish this, laws have been passed in all the states of the union, providing for the examination and certification of public accountants. In each state there is a Board of Examiners who at least yearly give a public examination to those who comply with certain requirements. Those who make a satisfactory grade on these examinations are granted a certificate which entitles them to term themselves Certified Public Accountants. This title is usually indicated by writing after the individual's name the letters "C.P.A." The state laws prohibit any one from terming himself a Certified Public Accountant unless he has passed the examination prescribed by the state. Some states recognize the certificates of other states under certain conditions and permit the holders of these certificates to practice as Certified Public Accountants.

In Canada and England examinations similar to those of the United States are given and the successful applicants are granted the title of Chartered Accountant, which is abbreviated to C.A. The American Institute of Accountants, which is the national organization of public accountants, gives semi-yearly examinations for admission to the Institute, but does not confer degrees. It grades those admitted to the Institute as Members and Associate Members, depending largely on their experience.

The qualifications required for the C.P.A. certificate differ in the various states. In most states the applicant must be a high school graduate or its equivalent and must have had three years' experience in accounting work. In some states accounting work in a private form will be accepted in lieu of part of the experience requirement, while in others all the experience must be in the office of a public accountant. The requirements vary to such an extent that only their general nature can be stated. Reference must be made to the laws of each particular state for details.

Auditing Procedure

It is beyond the province of this discussion to treat of the procedure and methods by which an auditor accomplishes his task. The primary purpose of the preceding discussion is to point out the nature and importance of the auditor's function and to emphasize the desirability of the present tendency of the public accountant to enlarge his field of work. By so doing he renders a greater service to the business public and makes himself a more efficient accountant and auditor. For a discussion of auditing procedure and methods the student is referred to any of the standard manuals on auditing, such as Montgomery's "Auditing Theory and Practice"; Castenholtz's "Auditing Procedure"; and Wildman's "Principles of Auditing."

The Auditor's Report

Although it is not deemed expedient to treat of auditing procedure in this discussion, it is thought worth while to explain briefly the nature of the report which the auditor submits to his client. Although the majority of those who study this text will not engage in the public practice of accounting, and therefore will not be called upon to do auditing work, most of them will sometime have occasion to use the auditor's report.

The contents of the auditor's report will depend to a considerable degree upon whether he has performed a Balance Sheet audit, a detailed audit, or a special investigation. If the report covers a Balance Sheet audit, it will contain a Balance Sheet with such accompanying comments as are deemed necessary. If it covers a detailed audit, it will contain a Balance Sheet, a Statement of Profit and Loss, and the necessary comments. If it covers an investigation, it will contain the statements necessary to present the information desired as a result of the investigation with appropriate comments.

Accountants do not agree as to the extent of the comments which the report should contain. The early practice was to make these comments very limited or to eliminate them entirely. The present tendency is to increase their number and scope. Some accountants comment upon each item on the Balance Sheet and the Statement of Profit and Loss, explaining the method employed to verify it and anything unusual with reference to it. Suggestions for improvement in the method of handling some items may be included. Other accountants confine their comments to those items about which there is something unusual or with reference to which the accountant has some doubt.

It is contended by some accountants that the report may be desired for public use—for instance, submission to banks or other creditors—and therefore it is better to place in a separate report all comments and suggestions which are not necessary to the proper interpretation of the financial statements. There is considerable merit in this contention. The important point from the viewpoint of the author is that the auditor should feel that it is a part of his responsibility to offer all suggestions possible which may be helpful to his client or his staff. He should use judgment in making these suggestions and should not offer them in a critical or offensive way. By this means he can increase the esteem in which he is held by his client and consequently secure profit for both.

The Auditor's Certificate

It is customary for the auditor to incorporate a statement in his report which certifies to the correctness of the financial statements contained in it. If the auditor has been able to satisfy himself as to the correctness of all the items on the statements, he may give an unqualified certificate in some such form as the following:

> "I have audited the accounts of the X Company for the year ended December 31, 1920, and
>
> I certify that the above Balance Sheet is, in my opinion, a true statement of the financial condition of X Company at December 31, 1921, and that the accompanying Statement of Profit and Loss is a true statement of the operations of the company for the year ended December 31, 1921."
>
> JAMES BROWN,
> *Certified Public Accountant.*

In some cases the auditor is unable or finds it inexpedient to verify all the items on the financial statement and accepts the statements of others that they are correct. In this case he may *qualify* his statement by explaining the basis on which he makes his certificate. For instance, the auditor may be asked to audit the accounts of a manufacturing firm as of December 31st, and he may begin his audit on January 15th. The inventories have changed since December 31st, and consequently he can not by physical count verify the quantity which the inventory record shows as of that date. He may content himself with accepting a statement of the factory manager certifying to their accuracy after investigating and finding that the general method of taking the inventory is proper. Under such circumstances his certificate may be as follows:

> "I have audited the accounts of the X Company for the year ended December 31, 1921. The inventories of raw materials work in process and finished goods were accepted at the valuations placed thereon by the factory manager. I have verified the extensions, footings, and prices of the inventory.
>
> "With the foregoing qualification, I certify that in my opinion the accompanying Balance Sheet as of December 31, 1921, and the Statement of Profit and Loss for the year ended that date are correct."
>
> JAMES BROWN,
> *Certified Public Accountant.*

Accountants differ as to when a qualified certificate should be given. Some would not introduce a qualification in the foregoing case on the theory that it is generally understood that the accountant does not verify the physical quantity of the inventory. It is thought, however, that frankness between the accountant and those who may use his reports is very desirable. It can do no harm to state the facts fully so all those to whom the report may come will know exactly what the accountant has done to insure the accuracy of the statements which it contains.

QUESTIONS FOR CLASS DISCUSSION

1

Explain the relation of auditing to accounting.

2

Explain and illustrate by concrete examples the purpose of an audit.

3

Explain the purpose of: (a) Balance Sheet Audit. (b) Detailed Audit. (c) Investigations.

4

State conditions under which each are desirable.

5

"Some businesses retain a permanent auditing staff which performs the auditing function." Why do not all businesses follow this practice?

6

Compare the work performed by the public accountant of today with that performed by the public auditor in the early development of the accounting profession.

7

Who is a "Certified Public Accountant"? What is necessary to obtain this title?

8

Mr. James Smith writes his name as follows: James Smith, C.P.A. Mr. John O'Brien writes his name, John O'Brien, C.A. Explain.

9

Explain the purpose and content of the auditor's report.

10

Has there been any change in the content of the auditor's report during recent years?

11

Explain the purpose and content of the auditor's certificate.

12

Explain the difference between a *qualified* and an *unqualified* certificate.

13

Illustrate when each may be given.

LABORATORY MATERIAL

Exercise No. 197

Mr. H. G. Moulton, President of the H. G. Moulton Manufacturing Company, desires to have a yearly audit made for his company. The directors of the company doubt if the services received from an audit are worth the expenditure. Mr. Moulton requests you to prepare a statement with reference to the advantages of an audit which he can submit to his directors.

Instructions: Prepare the statement requested by Mr. Moulton, explaining:

(a) The purpose of an audit in general.

(b) The nature of both a Balance Sheet audit and a detailed audit.

(c) The advantages to be obtained from each kind of audit.

Exercise No. 198

After discussing your report to Mr. Moulton, the directors of the company authorize him to employ you to perform an audit of records of the company for the year ending December 31, 1920. In the course of your audit you discover the following:

1. Some items in the inventory of December 31, 1920, have been taken at cost when the market price was lower than cost. Other items have been taken at market value when it was higher than cost. You find that if all items in the inventory are taken at cost or market price, whichever is the lower, the total value of the inventory is $8,000.00 less than that shown on the books.

2. Accrued wages to the amount of $1,200 have not been entered on the books.

3. On July 1, 1920, $500.00 was paid for two years' insurance on the factory and equipment. The total of the premium has been treated as an expense of the year 1920.

4. The cost of repairing and repainting the factory building, amounting to $3,000.00, has been charged to the Building account.

5. No provision has been made for the income taxes for the year 1921. You estimate these to be $12,000.00.

6. Accrued interest on notes receivable amounting to $400.00, and accrued interest on Liberty Bonds for the same amount has not been entered.

7. Merchandise of the cost value of $2,000.00, which is in the hands of consignees, has not been included in the annual inventory.

8. No provision for bad debts has been made. You estimate that this reserve should be $1,800.00.

9. The directors have declared a dividend of $20,000.00 on preferred stock payable on March 1st. This has not been entered on the records.

10. The company has $20,000.00 of bonds outstanding under a mortgage which provides:

(a) That each year there shall be a credit to a Reserve for Sinking Fund equal to 5% of the par value of the bonds.

(b) That each year there shall be a debit to a Bond Sinking Fund for the same amount as the credit to the reserve account.

11. Stocks purchased on February 1, 1920, at $20,000.00 were increased on the books to $25,000.00 on December 31st, and the difference credited to Profit and Loss.

12. Furniture and fixtures costing $2,000.00, but on which there had been established a reserve for depreciation of $800.00, were sold for $1,300.00. The asset account was credited for the selling price at the time of sale. No further entries or adjustments have been made.

13. The expense and income accounts have been closed and the Profit and Loss account shows a credit balance of $160,000.00.

Instructions: Make the journal entries necessary to give effect to the foregoing adjustments and to close the Profit and Loss account.

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