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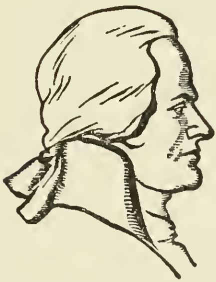

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ACCOUNTING PRINCIPLES

BY

THE EDITORS

IN COLLABORATION WITH
FREDERIC E. REEVE AND FRED C. RUSSELL

MODERN BUSINESS

VOLUME 9

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PREFACE

It is the purpose of this Text to present to the reader in as simple a form as possible the fundamental principles of modern accounting. In the business world of today the accountant is a power, he is the confidential friend of the executive. Without his keen analysis of business situations the executive would be at a loss to formulate his business policies. The executive must, however, understand the language that the accountant talks, and it is with the idea of giving him this understanding that the present volume has been prepared. Necessarily it must develop as much of the routine of accounting practice as is required to put in their true light the principles which lay behind it. But it has been with an eye single to these principles that the Text has taken its present form.

The editors acknowledge with pleasure the material aid rendered by the collaborators—Frederic E. Reeve, C. P. A. and Fred C. Russell, B. C. S., Auditor of the Alexander Hamilton Institute, who to their practical accounting work have as instructors in Accounting in the New York University School of Commerce Accounts and Finance added skill in the presentation of the subject.

THE EDITORS.

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ACCOUNTING PRINCIPLES

CHAPTER I

DEVELOPMENT AND SCOPE OF ACCOUNTANCY

1. *Importance of accounting.*—It is a far cry from the clay tablets, on which the early Babylonian merchants laboriously recorded their transactions, to the complicated, extensive and detailed accounting records of the big business organizations of today. There is perhaps a divergence equally wide between the business methods of early days and the advanced types and methods of modern times. Yet records were needed then as now and there is no doubt that these early merchants could not have been successful in their operations had they kept no records of their ventures, and had been unable to determine the results of individual undertakings.

Without adequate, modern accounting records capable of portraying in intelligible form the results of each separate activity as well as of the business as a whole, modern enterprise would be impossible. Accounting is the foundation of every business. It binds together the various units of an organization and enables the executive to control and direct large undertakings, without burdening his mind with all the details of each separate activity or department.

2. *Development of modern accounting.*—Crude and imperfect as they were, the ancient accounting records served all the needs of the merchants of those days. A large part of business then was a series of ventures or trading trips for which full accounting was rendered at the end of each undertaking. Consequently, the records needed were simple and covered only the individual venture and the personal debts arising out of it. As business grew in volume the individuality of any single undertaking became more or less merged with that of other contemporary transactions of the same business men or groups of men. Accounting then became a matter of continuous record which showed not only the results of individual transactions but also the results of classes of transactions. In addition it expressed the results of the business as a whole, irrespective of how many ventures might be in process.

It was then no longer possible to wait until undertakings were completed before measuring their results since with the increased activities there were always some ventures in process. As a consequence it became customary to cast up the results on a yearly basis or by subdivisions of the year. This in turn required the establishment of values for incompleted contracts or undertakings. Factors were then introduced into the records that had formerly been either ignored or carried only in the memory of those interested. This change and development in the form of business records has continued until we have developed a system of record keeping governed by a set of rules which gives us many pertinent facts about a business, and at the same time acts as a check against errors in recording.

This science—for accounting is now a science—is based upon certain definite and known principles on which it is possible to construct an accounting system which will reflect the individual peculiarities of each business and which will permit indefinite variations of the system to meet the needs of each separate organization.

Today, accounting is something more than a record of debts and ventures. It gives a complete picture of all things owned and owed, it points out both classified and total profits. The most important feature now, however, is the guidance and help which properly constructed accounting records give to the executives in the management. Accounting today is, therefore, much more than a record of debts and ventures. Thru it we gain a complete picture of assets and liabilities, and it points out to us not only the total profits, but if we so desire the separate sources from which they are derived. Most important is the help and guidance which properly constructed accounting records give to the executives in the management and direction of their business. It enables them to control and measure business operations which they do not see and to exercise such control over many operations at once instead of being limited to the capacity of their memories as they would be if they had no records on which to rely.

Just when this development in record keeping took place cannot be precisely determined. The development of modern business methods and improved accounting practices or processes have gone hand in hand. The growth in accounting has been due in part to increased demands for reference records, to legal requirements and to the limitations of human memory as to what has occurred. Their use as an aid to executive guidance has been slower in its growth and came into existence first as a by-product of the earlier need for reliable records. This phase is still in the process of development and each executive as he uses accounting statements constructively adds a little to the development of this field.

3. *Systematic record keeping.*—To realize how accounting makes big business of today possible we must have a clear idea of what accounting is and what a properly constructed accounting system can do. But before doing that it would be well to determine the exact definition of accounting. Business consists of a series of exchanges, such as goods for money, services for money, services for goods and the like. If every exchange took place on the basis of immediate payment, no records would be necessary so far as the individual transactions were concerned. The introduction of deferred payments and credit media of exchange made it necessary to keep records of the de-

ferred items. The science of accounting therefore becomes the fabric of processes and operations by which these records are maintained.

The one single feature which is common to all accounting systems ever instituted, is that of record keeping. At first the records were temporary, and were destroyed as soon as final adjustment of the account had been made. Today, however, the records are made in permanent form; such reference is a minor feature, excepting of course in the case of disputes and legal complications. Their real importance lies in the fact that individual records may be classified and summarized into statements which deal with and explain activities in totals and not according to individual transactions.

Just consider how impossible it would be for even the small corner grocer to tell accurately how much he had made or lost, how much stock he had on hand and how much his business was worth without records unless he took a detailed inventory of his business. He must first develop an accounting system which will show him in addition to a record of how much he owes and how much is due him, a classified account of his income and his expenses as well as a complete record of all that he owns and its value.

4. *Functions of modern accounting.*—The modern complex system, then, brings to the executive a record of all sources of income both in total and by individual sources. It classifies all the expenses incurred to earn this income, separating them by sources of income and

causes of expense for each classification. In addition it presents a detailed record of all wealth owned by the business and all debts owed.

With such data at hand, an executive can picture the progress and status of each separate division of his business. Since the accounting statements present details as well as results he is able to put his finger on every cause of unnecessary or excessive expense. In like manner he knows the relative profits earned by different activities and is able to stimulate the more profitable lines of endeavor and curtail, abandon or improve the unprofitable lines.

5. *A check on personal responsibility.*—In addition to the two features of record keeping and of executive guidance just discussed a properly constructed accounting system will do much toward establishing personal responsibility and promoting honesty among officials and employes. In any business that has employes other than the manager, where the activities are carried on by more than one individual and thru the use of more than one room or in more than one department, the owner or executive must entrust all or a part of his funds, materials or other possessions to the care of other officers or employes.

There is far less chance of these trusted employes yielding to temptation and converting part of the funds or goods to their own use, if they realize that their responsibility is fixed by record and that any dishonesty on their part will be liable to immediate discovery. In the public mind this purpose of protection is still frequently considered the chief aim of bookkeeping. It is an important function and has given rise to the modern systems in which the idea of an "internal check" is given such prominence. But while important, this feature is only one of the many services rendered by an adequate accounting system.

6. *Measures of efficiency.*—We have seen how accounting binds together all parts of a business and thru presenting a picture of the past becomes a guide to the future. It is only a natural conclusion, therefore, to say that no one can become a capable executive, can manage a business of any magnitude, direct a department or assume managerial responsibilities of any kind unless he can interpret accounting records accurately. To some extent, moreover, every individual in a business organization is responsible at least in part for the prosperity of that business. As a consequence, the results of each person's effort are certain to be reflected in the accounting records.

Those who have charge of departments, or who hold or expect to hold responsible positions, should understand this. They should realize that the best possible measure of the success of their work is found in the accounting records which deal with their work. When they are able to interpret these records, when they see in the accounting records a reflection of the efficiency or the inefficiency of their work, their department or their organization, they are going to be better equipped for their job or for the job ahead of them. Without this knowledge and this ability they must rely on luck and guess work—uncertain aids which fail when put to the test.

7. *What constitutes a working knowledge of accounting.*—The requisite extent of one's knowledge of accounting depends of course upon the purpose for which it is to be used. The bookkeeper, accountant or auditor must understand not only the principles of accounting system construction and the operation of existing systems but must also have had experience in practical work and in the application of accounting principles to business conditions.

This is the requirement for the specialist. If the chief interest of the executive is to interpret financial statements correctly, the question arises as to what he must know of accounting in order to enable him to do so. It can be safely said that too much accounting knowledge on the part of the executive is practically impossible. The more he understands about both the theory and the practice of the subject the better he can read his statements and adapt his accounting system to the particular needs of his business. It does not follow that the executive must have had extensive practical experience in accounting work. He need not feel that he must have kept a set of books and understand all the details of accounting processes in order to interpret the results which are finally disclosed to him in financial statements.

He must, however, have a clear understanding of the fundamental principles underlying system construction, accounting practice and accounting statements. He must be thoroly familiar with the meanings of the technical terms and definitions used in accounting work, he must understand what accounts are and the nature and purpose of the accounts themselves. He must understand the principles of account classification and of contrasting values. He will find it equally essential to understand the relations which the various accounts and classes of accounts should bear to each other and how each one tells the story of some part of the business. In fact he must master every phase of accounting if he is to get full value from his statements and records.

8. *How accounting information is presented.*—From the mechanical viewpoint the preparation of financial statements is the final goal of accounting work. It is true that even the bookkeeper should train himself to interpret the statements he prepares, but his main work is that of collecting together and classifying the financial effects of all the activities of the business. Having done this he summarizes and groups in accordance with accounting principles the information he has collected and presents his summarized data to his executive in the form of monthly financial statements.

It is not essential that an executive be mechanically expert in preparing such statements, but if they are to mean anything to him he must at least understand the theory and the principles lying back of them. This knowledge of his must extend to the very first stages of the bookkeeping work. It will be of interest, therefore, to review briefly the various phases of account keeping and the several fields of accountancy.

9. *Bookkeeping.*—The general conception of bookkeeping is that it is the art or practice of recording business transactions systematically in account and book form and expressing the results of these transactions in monetary form. It deals with each transaction individually and collectively in so far as the individual transactions may be classified in groups of like nature. The sales account for example may contain records of thousands of individual sales but it will also show in total the sales for the month or for several months. The three chief principles of bookkeeping work are:

(a) The record should be so explicit and minute in detail that, at any subsequent time, the nature and character of the transaction may be readily perceived without any oral explanations, even if such were possible.

(b) As the leading principle of bookkeeping is classification, the transactions should be so classified that at any time the total results of such transactions or of any particular class thereof, during any given period, may be readily ascertained.

(c) The system of account-keeping should be so devised that the maximum amount of information may be obtained with the minimum of clerical labor.

10. *Accounting.*—We have just seen that the art of using an accounting system to reveal the results of operations of an enterprise as they occur and to compile the facts of such operations in intelligible form is called bookkeeping. It might otherwise be described as "the art of recording pecuniary transactions in a regular and systematic manner."

Accounting on the other hand is the body of principles and rules governing bookkeeping processes and financial statement preparation. As contrasted with bookkeeping, accounting is the science governing the art of bookkeeping practice. Accountancy, however, is the profession of practicing accounting in any one of the several phases into which the latter is divided. It has been defined as "a profession the members of which by virtue of their general education and professional training offer to the community their services in all matters having to do with recording, verification and presentation of facts involving the acquisition, production, conservation and transfer of values."

The field of accounting work is usually divided into: constructive accounting, bookkeeping, inspective accounting and interpretive accounting.

11. *Constructive accounting.*—Constructive accounting comprises the work of devising new accounting systems and the improvement of existing systems. Any system is made up of four parts, namely:

1. A set of accounts each of which is exactly defined, in which are classified and recorded the pecuniary effects of business operations.

2. A system of books in which these accounts are kept and by which the financial data are classified and grouped according to accounts.
3. The routine and processes governing the collection of this information and the operation of the accounting system together with the many subsidiary forms and original entry memoranda required to bring the data to the accounting records.
4. The forms and statements by means of which the information collected in the accounting records is summarized, grouped and presented to the executive heads of the business. Without satisfactory, complete and intelligible financial and business statements as a part of the system all the other phases serve but a small part of their purpose and usefulness.

The proper construction of a system of accounting involves scientific classification of transactions. It requires a thoro understanding not only of the accounting principles involved but also of the nature and peculiarities of the business for which the system is constructed as well as the purposes to be attained in the system and reports to be used. Whether the kinds of books, forms and routines used lend themselves to accurate, efficient and economical use, depends upon the success with which the constructive work is done. It becomes apparent therefore, that constructive accounting requires an extensive training and a high order of intelligence.

The work of operating the accounting system after it has been installed is what is commonly known as bookkeeping, which has already been discussed in preceding sections.

12. *Inspective accounting.*—Because of the details involved in bookkeeping work and also because of the frailty of human effort, errors of principle and mechanical errors creep into the bookkeeper's work. There is always present as well the possibility of fraud on the part of those charged with responsibilities. It is becoming more and more customary to undertake at regular intervals a review of the bookkeeper's work. This review extends also to a checking for possible frauds in the forms of misrepresentations perpetrated by the proprietors themselves. This phase of accounting, including the preparation of independent, summarized, financial statements from the inspected records, is known as inspective accounting.

13. *Interpretive accounting.*—The final aim of all accounting work, whether it be constructive accounting, bookkeeping or inspective accounting, is to render possible the collection and presentation of all the essential facts regarding a business enterprise. The work of reading accounting statements and drawing from them all possible data which express the operations of the business, the profits earned and the present financial status is known as interpretive accounting.

Interpretive accounting deals not only with tendencies as shown by totals but also with individual causes and effects. By it the managers and proprietors, when their accounting systems are properly constructed, can obtain a wealth of information to guide them in their plans for the future and to make clear the results of what has taken place in the past.

14. *Public and private accounting.*—Public accounting is distinguished as a separate branch of accountancy by reason of the persons who pursue it rather than the nature of their work. Public accountants offer their accounting services to the general public for hire in the same manner as men in other professions. Constructive, inspective and interpretive accounting are all parts of a public accountant's work. The greater part of their time, however, is put in on inspective accounting, tho because of their extensive experience they are peculiarly fitted for constructive accounting as well.

15. *Divisions of the subject.*—The field of accounting is large but for the purpose of study and practice it has been separated into a number of subdivisions. The treatment of this subject in the Modern Business Course has followed the lines of these generally accepted divisions.

The present volume deals with the fundamental principles underlying all accounting and gives considerable attention to processes as well as principles. This is done that the reader may become well grounded in the factors which he must master if he is to understand how his accounting system reflects the actual condition of his business.

Another volume, "Cost Finding," deals in equal detail with the fundamentals and the underlying principles of cost keeping. This is a field of growing importance in which the practices followed differ materially in detail from those involved in general accounting. Cost accounting is, however, but a division of the general subject of accounting. The information collected in the cost records and thru cost accounting processes is all definitely expressed in the accounting statements. It is of course also true that much of the information developed thru cost accounting work is used independently of the general accounting system in establishing selling prices and manufacturing policies.

A later Text, "Accounting Practice and Auditing", deals in the first section almost wholly with practice and methods in order that the reader may familiarize himself with the application of accounting principles to the more involved business conditions. It illustrates how the general rules of accounting may be altered to meet almost any unusual condition which may be encountered. The subject of auditing is discussed wholly from the standpoint of the business man who employs an auditor. It is of value not alone because it discloses what can and cannot be obtained from an audit but also because it should help the business executive to cultivate the accountant's viewpoint.

The Text on "Financial and Business Statements", as the title implies, treats of the culmination of all accounting effort. This last volume of the series deals wholly with the uses which can be made of financial statements, and how to interpret them to a limited extent. It covers also the special forms of statements which are required to reflect special conditions.

16. *Necessity for a knowledge of principles.*—The practice of accounting is of necessity hedged in with many technical rules and processes which because of the amount of detail involved may be more or less intricate in their final operation. To understand and to read or interpret the results which are disclosed in the summarized results of the accounting work it is quite evident that a sound knowledge of principles and practices must be possessed. To this end the reader, whether he intends to practice or not, will find it essential to develop the ability to read accounting statements intelligently and exhaustively.

In this volume the principles of accounting are here developed thru a careful analysis of the processes of bookkeeping. To those to whom this is familiar ground the presentation offers a review and may at the same time give a clear insight into the significance of those processes which they may have already understood mechanically but not logically. To those to whom this ground is unfamiliar the labor involved in briefly studying the practical side of bookkeeping will be lightened and rewarded by the insight that it gives into the underlying fundamental principles.

REVIEW

What are some of the functions of a modern accounting system?

How much accounting should an executive know?

Discuss the relation of accounting and bookkeeping; of accounting and accountancy.

Explain the objects of each of the four types of accounting.

Why and how will a knowledge of the processes of accounting be of value to you in your work?

CHAPTER II

ACCOUNTS AND THEIR PURPOSES

1. *Books and accounts.*—In the aggregate the accounts designate the complete financial record of a man's business. For this reason the term accounting has largely superseded in business language the older term bookkeeping, tho they have much in common. Bookkeeping emphasizes the mechanism—the routine work of compiling the facts of business—while accounting fixes the attention on the results of business transactions, by which their success or failure is judged and measured.

2. *General nature of business transactions.*—Business transactions are essentially exchanges of value, since in business all expenditures are made in the expectation of receiving a fair return. In these exchanges four types of value are involved—cash, goods, services, and debts. Any one of these may be exchanged for one or more of the others. When you pay your rent you are exchanging cash for service, the service rendered you by the owner of the building. The purchase of merchandise involves the exchange of goods for cash, for debts, or for cash and debts, according to the terms of payment.

In the accounts, the effects of these various exchanges are portrayed and classified so that all items affecting the same subject are grouped together.

It may be noted that while the term "accounts" expresses the aggregate of business transactions it implies a number of separate accounts. We must have, therefore, a complete understanding of the nature of the individual accounts before we can have a broad idea of accounts as a whole.

During a business period, one day, for example, the various transactions are recorded as they occur, in chronological order in what is known as a book of original entry, or journal. At the close of the day, those transactions are sorted or classified according to kind, and all having to do with some specific person, firm or thing are transferred or "posted" to the ledger account with that person. Ledger is the name given to the book which contains the transactions of the business in account forms.

An account, or summary of the relations of the business to some person or firm or thing, is the substance of which the books are only the form. Books are kept solely for the information to be obtained from them. The size, shape and method of arranging these books may be varied to suit the needs of the individual business. Indeed, the term "books" must not be construed too closely; a piece of board on which measurements and prices of lumber had been jotted has been considered a true book of original entry; a series of sales slips on a sticker may be the authority for various postings to ledger accounts. The accounts themselves may be written on cards and kept in a file case instead of in a book.

Any record of business transactions relating to one subject may be called an account, but a standard form of account has been evolved, which is so arranged as to present all the facts in any transaction or set of transactions relating to one subject as concisely and clearly as possible.

The chronological record of withdrawals and deposits made on the stub of a check book gives an account of the depositor's dealings with the bank, but not an account in systematic form. Let us consider the development of an account, as the term is technically used, from such memoranda.

Let us examine the memoranda an individual might make upon the stub of his check book in noting deposits and withdrawals of cash from the bank.

Balance in Bank...............	$500.25
Interest check received.......	50.00
	550.25
Paid James Smith, check 16....	18.00
	532.25
Received from A. Brewster.....	150.00
	682.25
Balance brought forward.......	$682.25
Paid cartage, check 17........	5.00
Balance	$677.25

To the initial balance of $500.25, the individual keeping the above record has added the amounts deposited, and from this he has deducted checks as drawn in the ordinary course of events. This is obviously a record of the transactions as they occurred. Without rearrangement, it gives us details, but no summary of the total amount entrusted to the bank, and the total withdrawn.

By rearranging this information we can show in one group all deposits, in another, all withdrawals, somewhat in the following fashion:

Balance	$500.25
Checks deposited	
Interest	50.00
A. Brewster	150.00
	$700 25
Checks drawn	
No. 16, J. Smith	18.00
No. 17, cartage	5.00
	$ 23.00
Balance	677.25
	$700.25

The receipts or deposits, together with the balance on hand at the beginning, are shown separately and in total. The withdrawals are likewise shown in sum and in detail. The difference between these two totals represents the amount now in the bank.

This statement of the facts in the case is readily understood; it tells the complete story of the individual's transactions with the bank, and improves upon the previous arrangement by classifying the transactions according to kind, but while this serves as a convenient summary, it does not allow of expansion.

By the use of two columns, we can show in one, all deposits, in the second all withdrawals. This is an account in the conventional form—a ledger account.

CASH ACCOUNT

Balance	$500.25	Check 16 J. Smith	$ 18.00
Interest	50.00	Check 17 Cartage	5.00
A. Brewster	150.00	Balance	677.25
	$700.25		$700.25
Balance	677.25		

On the left are recorded the balance at the beginning, and the deposits; on the right the withdrawals.

Pass Books:—To balance the account, the difference between the two columns, $677.25, is shown on the smaller side, the totals brought down, and lines ruled under them. This is known as closing the account. The pass book presents this type of account, and is, indeed, frequently found in this form. The balance is then written in on opposite sides. It is evident that there need not be a balance, since the sides might be equal, i.e., the withdrawals amount to the deposits.

3. *The bank's account with the customer.*—All these entries have been made from the viewpoint of the depositor. The bank would, however, make use of the same form in keeping its account. The depositor had owned $700.25, which he entrusted to the

bank for safe keeping. The bank was, therefore, accountable to him for this amount; by paying the checks drawn, it did account for some $23. The remainder is a liability of the bank, since it represents a sum that must be paid.

BANK'S ACCOUNT

Check paid	$ 18.00	Balance	$500.25
Check paid	5.00	Deposit	50.00
Balance	677.25	Deposit	150.00
	$700.25		$700.25
		Balance	677.25

The bank's account with the customer is, we see, the converse of the customer's account with the bank. The principle of the account, however, remains the same; that is, in all cases, the account is "a systematic statement of financial facts of the same or opposite tendency leading to a conclusion."

Accounts are kept, not only with cash, customers, and creditors, but with every kind of value received or given. The first of the foregoing illustrations was a cash account; the second, that of the bank, a customer's account.

4. *Interrelation of the accounts.*—Tho for the purpose of illustration we have isolated the cash transactions of a man with his bank, both in his own business and in that of the bank, it is obvious at the most superficial glance that they are not so unrelated. We have looked at a series of transactions revolving around the element cash, but it is clear that they have other aspects. These are indicated by the explanations why cash flowed in and out of the man's possession. One

incident is the receipt of cash in payment of interest. If this is a regularly recurrent feature of the business the establishment of an interest account is suggested and the grouping together of all transactions relating to interest. Another incident recorded is the payment of money by A. Brewster. Why was this payment made? The cash account does not tell us. In all probability there were antecedent relations with Brewster, and it would be necessary for an analysis of the business to gather into one group or account all of the transactions in which Brewster had a part. In like manner the payment of cash to J. Smith and to some person not designated, for cartage, suggests that there may be a group of transactions of which Smith is the center, and another which is concerned with cartage or analogous expense.

Again it must be clear that so far as the particular transactions here recorded are concerned they appear in a different light when viewed from the respective standpoints of interest, Brewster, Smith and cartage than when they are looked upon from the standpoint of cash. Take for example the case of Brewster and Smith. Brewster pays money into the business and by so doing he creates an obligation towards himself, he becomes thru this transaction alone a creditor of the business. We have seen that in the bank's account with the customer, a deposit in the bank created a liability of the bank and appeared on the right hand side of the account. So in the case of Brewster's account this payment will appear on the right hand side of the account while in the cash account it was on the left hand side. In the case of Smith a payment of cash is made to him and by this transaction alone he becomes the debtor of the business. Following the analogy of the bank's transactions with its customers this record will appear on the left hand side of Smith's account, tho in the cash account it is found on the right hand side.

These illustrations suggest that if all the several accounts involved in the series of transactions were presented they would be found to be reciprocal, and this is in fact the case.

5. *Analysis of transactions.*—Just as "the accounts" whose preparation is one of the chief activities of bookkeeping are made up of a large number of separate accounts, so each of these accounts is made up of separate transactions. We have seen further that each transaction appears under different aspects in two accounts. It is, therefore, of the first importance that before the transactions are entered to make sure which accounts are concerned and which side of each account is to receive the appropriate notation. In the technical language of bookkeeping the problem is to distinguish debits and credits. An account is debited when an entry is made on the left hand side of an account; it is credited when an entry is made upon the right hand side.

6. *Debits and credits.*—Every business transaction will result in changes in what is owned (assets) or in what is owed (liabilities). These changes will be

recorded by a debit or credit to some account. Every time an entry is made on one side of an account, an equal and opposing entry must be made on the other side of some other account—for every debit there must be a credit.

It is often difficult to determine just which account is to be debited, and which credited, and altho of the making of rules for debiting and crediting there is no end, and tho such rules are likely to result, in the long run, in confusion and weariness, the following principles may be stated as governing all business transactions to which debits and credits apply:

(a) Debit the account with that which comes into the business or costs the business value.
(b) Credit the account with that which goes out of the business or produces value for it.

That is, every increase in assets is represented by a debit to the account receiving the benefit of the increase; every decrease in assets is represented by a credit to the account suffering the reduction. Similarly, every increase in liabilities is shown as a credit; every decrease in liabilities by a debit.

7. *Application of the rule.*—The process of reasoning to be followed in analyzing a transaction and assigning the resultant debits and credits involves three steps:

(a) Determining debits:
   1. Decide just what comes into the business or costs it value. Reduce the item or items to

something concrete, such as land, an automobile or service rendered.

2. Determine what account class or division is provided for such items.
3. Debit the proper account in this division.

(b) Determining credits:

1. Decide what goes out of the business or produces value for it. Reduce the transaction to a specific item or items.
2. As above.
3. Credit the proper account in this division.

8. *Examples.*—

Sold fifteen pounds of sugar for one dollar.

The cash account receives the benefit of this transaction, and is debited with $1. The account with sugar suffers a corresponding reduction, and is, therefore, credited. If the merchant had made the sale on credit, he would have received, not the cash, but the right to demand from the purchaser one dollar at some future date. In this case, the account with the customer, an amount receivable, would be charged or debited with the amount due. The account with sugar would be credited, as before.

Purchased typewriter for $75

The account receiving the benefit of this transaction would be one with "Furniture and Fixtures." This is debited, and cash credited with $75, the amount paid out.

Paid rent for the coming month, $100

The account with "Rent," or possibly a more extensive one representing the general expense of doing business, is debited; since cash goes out, and cash on hand is thereby diminished, cash is credited.

REVIEW

What is an account, and how is it customarily shown in the ledger?

Show the account of James & Company with A. Andrews, who on July 5 bought $250 worth of goods. Later in the month he returned as defective $49.75, paid on account, $175; purchased other goods amounting to $490; and paid on account $500.

What accounts, other than the one with A. Andrews, are affected by each of these transactions?

State the rule for determining debits and credits.

What accounts are debited and what credited upon: the payment of salaries (in cash); the purchase of an office safe (on credit); the receipt of a payment on account?

CHAPTER III

CLASSIFICATION OF ACCOUNTS

1. *Kinds of accounts.*—The rules for debit and credit stated in the preceding chapter are fundamental to the upbuilding of any system of accounts. Yet they often prove a stumbling block to those who are making their first acquaintance with accounting processes. This is the case because at the outset all accounts look alike to them, and they are not aware of the fact that accounts fall into different classes which have different qualities. A review of these classes will be helpful.

2. *Personal and impersonal accounts.*—Some authorities make a preliminary division of all accounts into two classes:

1. Personal accounts
2. Impersonal accounts

The terminology explains itself: on the one hand accounts with persons and on the other accounts with things tangible and intangible. But while it is self-explanatory, it is not very illuminating. Accounts with persons, unless the proprietor's account is introduced, are in fact all of one class.

This is not, however, true of the impersonal accounts which may be widely divergent. A rule for distinguishing debits and credits as respects personal accounts may be readily formulated not in the general terms already given but with specific reference to the personal accounts, but believing that it is preferable to state the rules in general rather than specific terms we forbear from doing so. It may, however, be noted that no such simple formulation in specific terms can be made for the impersonal accounts, a fact which of itself indicates that we have to do with a composite group. Indeed we shall find that many of the impersonal accounts are more closely akin to the personal accounts than they are to other accounts of the impersonal group.

3. *Real and economic accounts.*—Much more fundamental is the division into real and economic accounts.

Real accounts, often called property, specific or financial accounts, deal with the things, rights and privileges which constitute the actual capital of the business.

Economic accounts, often called profit and loss or nominal accounts, show the progress of the business and its relation to the original capital investment.

The real accounts show the values in tangible property and things, or claims against persons, firms, or corporations, which enter into the business. They may be positive or negative, that is, they may be values the business owns or values it owes, assets or liabilities respectively. The excess of assets over liabilities is the net worth, capital, or proprietorship. That is,

$$\text{Assets} = \text{Liabilities} + \text{Proprietorship}$$

If the liabilities exceed the assets, the difference is known as a "deficit." The real accounts are those which appear on the balance sheet, and which indicate the financial standing of a concern.

Economic accounts may be regarded as temporary proprietorship accounts, in which income and expense are shown. Income, for accounting purposes, is said to be the increase in capital which results from its employment in a business enterprise. Expense is, on the other hand, a temporary decrease in capital, which is incurred in the course of business for the purpose of increasing the amount of income, or revenue. Accounts are kept with the various sources of income, such as sales, interest earned, and the like, and with the various charges against income, such as purchases, interest lost, salary expense, office expense.

This natural division of accounts into those which show present financial conditions, and those which show changes in financial condition finds expression, as we shall see, in the balance sheet or statement of assets and liabilities, and in the statement of profit and loss respectively.

4. *What a real account shows.*—Reverting to the illustration given in the preceding chapter, it is clear that cash is a real account with tangible property. On the debit side was recorded every increase in cash, on the credit side every decrease. Such an account

must lead to the conclusion of a debit balance. It is likewise clear that the account with A. Brewster is a real account. We have only a fragment of it in the illustration, and we can piece it out as our imagination dictates. Let us suppose that he is a customer of the firm who buys goods on credit. Since when he buys he increases our right to demand payment, we find that every sale to him brings about an entry on the debit side of the account. When later these amounts are paid his account is credited. Unless all his debts to us have been paid his account will close with a debit balance indicating at the end of the period the amount to which he is indebted. Had there been no antecedent sales; had Brewster been a man from whom we had bought goods and, to account for the cash entry, occasionally borrowed money, the first entries in his account would be on the credit side and would represent our debts to him. As we paid them off entries would appear on the debit side of his account. If at the end of the period we had not fully paid up, the account would close with a credit balance representing what still remained of our debt to him.

The illustrations which we have here amplified point out that real accounts, unless both sides are equal, close with a balance, a debit balance representing our property or an asset, a credit balance representing our debt or a liability.

5. *What an economic account shows.*—Any economic account is designed to show the changes in proprietorship from some specific cause. It is, strictly

speaking, a subdivision of the proprietor's account. If we recollect that the assets less the liabilities equal the proprietorship we can see that the proprietorship balances the excess of assets. The greater it is the greater the proprietorship. Any change in the assets without any equivalent in tangible wealth means an increase or decrease of proprietorship. Interest received means such an increase. Expense incurred means a decrease. Without the economic accounts whose purpose is to analyze these changes in proprietorship all of these would be carried direct to the proprietor's account.

The subdivision into special temporary accounts does not alter the situation. If as is sometimes the case in rudimentary accounts, there is only one such account, "profit and loss," every gain—an increase in proprietorship—appears on the credit side; every loss —a deduction from the proprietorship—would appear on the debit side. The difference between the two sides would be the net gain or net loss, the net increase or net decrease of the proprietorship.

The introduction of a more analytical treatment of the sources of gain and of loss simply means that each economic account will close with a total gain or total loss, and that these results must be assembled before the net gain or net loss for the business can be ascertained.

6. *The merchandise account.*—Because it partakes in part of the character of a real account and in part that of an economic account, the merchandise account

deserves special mention. When in this account the receipts or purchases of goods are shown on one side, the sales on the other, there is a discrepancy between the balance as shown in the account and the value of goods on hand as revealed by actual count. When it is considered that the purchases had been entered at cost price, the sales at sales price, it becomes evident that the difference between the sales and purchases, when considered with the value of goods on hand, would equal the profit in the sale of goods.

Such an account would appear

MERCHANDISE

Purchases........	$6000	Sales........	$5000
		Inventory....	2000

Since in bookkeeping no subtractions are made directly, but by additions to the opposite side of an account, the inventory of goods on hand would appear opposite the purchases.

The difference between the two represents the profit made. This account differs from the accounts previously drawn, in that not all the elements are similar. There is a difference between elements of property, such as the inventories of goods, and items such as sales and purchases, which are respectively income and expense. Further, this merchandise account must be broken up and analyzed to find the purchases net or sales net. Instead of making this analysis at the end of the accounting period this account should be separated into its component parts—that is, separate accounts should be kept with sales, purchases, sales returns, purchase returns, and inventory of merchandise.

Sales will result in increased cash, or accounts receivable; purchases in decreases in cash, or increases in accounts payable. That is, all changes in property accounts will be explained by changes in accounts which represent, not property, but forces at work within the business, producing income and expense.

7. *Classes of assets and liabilities.*—Having seen the nature of the several accounts it will clarify matters to review the several classes of assets and liabilities. For general accounting purposes, assets may be divided into four main classes: (1) current assets, (2) working and trading assets, (3) fixed assets, and (4) deferred charges to expense. They are named in the order of their convertibility into cash.

There are, in general, three classes of liabilities: (1) current liabilities, (2) deferred credits to income, and (3) capital liabilities. These are listed in the probable order of liquidation.

In order that we may have a clear idea of each of these divisions, the various groups or classes will be explained in the customary order of their appearance upon a balance sheet.

8. *Asset classes defined.*—Current assets are said to be liquid; they represent forms of invested capital which are readily available, such as cash and other assets easily convertible into cash. They are employed in liquidating current liabilities—items such

as accounts receivable, notes receivable, special funds, are current assets.

Working and trading assets are those *in which* the business is carried on. In a manufacturing concern, they are those materials employed or consumed in creating the finished product. As there are various stages of production, there are corresponding classes of working and trading assets: (1) raw materials, (2) partly finished materials, or goods in process of manufacture, (3) finished goods—the final product, and (4) sundry materials and supplies incident to the manufacture.

Fixed assets represent that portion of the capital invested in more permanent forms—the assets *with which* business is carried on. The word "fixed" adequately describes their nature, since they represent property not readily converted into cash. Land and buildings, machinery and tools, furniture and fixtures, franchises, patent rights, good-will, and securities held for permanent investment all come under this heading.

Deferred charges to expense indicate amounts already paid for services to be enjoyed at some future date. Rent paid in advance is a typical item; insurance premiums paid for insurance unexpired is another.

9. *Liability classes defined.*—Current liabilities are those which are constantly maturing and which must be met from the funds at hand. They arise from the purchase of goods, thru the incurring of special expenses, and thru borrowing money. Accounts

payable, notes payable, taxes, wages, and interest due belong here.

Deferred credits to income are to the liability side of the balance sheet what deferred charges to expense are to the asset side, representing as they do income collected in one period which is really applicable to a subsequent period.

Capital liabilities are usually specific as to duration and maturity. They often reveal some relation to the fixed assets which may affect the net value of these assets in case of sale or transfer. Mortgages, mortgage bonds, and long-term notes fall in this class.

10. *How debit and credit affects different classes of accounts.*—With this clearer understanding of the nature of accounts, we can give the rule of debit and credit formulated in the preceding chapter a more exact meaning. It is evident that every debit entry represents:

An increase of assets, or
A decrease in liabilities, or
A decrease in net wealth.

Every credit entry indicates, on the other hand:

A decrease in assets, or
An increase in liabilities, or
An increase in net wealth.

To illustrate these points, examine some transactions, analyzing them into their component parts.

1. Upon making a sale on credit:
   Accounts receivable is debited and Sales account is credited. We have increased an asset—accounts receivable—with a corresponding increase in income which is recorded by a credit to sales.
2. Upon incurring an expense on credit:
   Expense is debited and accounts payable is credited. An increase in expense is followed by a corresponding increase in liabilities.
3. A customer makes a remittance:
   Cash is debited and accounts receivable is credited. This represents merely a transfer of assets; the total is unchanged.
4. The proprietor sends a note to a creditor to apply on his regular account:
   Accounts payable is debited and notes payable is credited. The liabilities are the same in total; this is only a transfer.

Upon studying these transactions, it will be seen that when income is increased something must rise to meet or balance the credit of the income. That is if there were no corresponding or balancing entry, the equilibrium of the accounts could not be maintained. In closing the books the result of the income increase could not be accounted for. Concurrently with the recording of the income, an asset account must be properly increased. Similarly where the proprietor incurs an expense he must record to whom or what he is accountable. If he receives something on credit a liability must be increased in ratio. Moreover if he pays cash for services he must take note of the fact not only as regards expense, but also as regards cash which is decreased.

REVIEW

Explain the classification of accounts into real accounts, economic accounts.

Classify the following accounts as real or economic: real estate, wages, raw materials, heat and light, office expense, taxes and cash.

A business has liabilities amounting to $11,720, and assets 1½ times the liabilities. What is the proprietorship?

Discuss the various classes of assets; of liabilities.

What are the effects of debit entries; of credit entries?

CHAPTER IV

DOUBLE ENTRY BOOKKEEPING

1. *Basis of bookkeeping.*—The scope of accounting and the general nature of accounts having been discussed, our next step is to analyze the processes by which the accounts are built up. This is the field of bookkeeping, the recording of transactions in the books and the summarizing of their financial results.

All recognized bookkeeping systems are based upon the principles of the classification of accounts, and the principles of debit and credit already considered. They differ from one another chiefly in the extent to which they carry these principles to their logical conclusions. Two systems of bookkeeping—single entry and double entry—are familiar.

In its original form single entry is merely a record of the debts owed by the business and the debts due to it. It is confined wholly to the personal accounts of debtors and creditors. For each transaction, therefore, there is a single entry. When books are kept on this basis today, as is sometimes done in small concerns, they usually go beyond this. Records or accounts are kept with different classes of assets such as cash, merchandise or with certain categories of expense, rent or labor. Such records serve useful statistical purposes, and in so far as they involve making two records of certain transactions, they represent a step towards the double entry system which, as its name implies, holds rigorously to a twofold record of all transactions.

From a bookkeeping standpoint then, single entry systems represent different stages of incompleteness.

2. *Double entry records.*—As already indicated double entry bookkeeping—the system in general use today—is based upon the principle that every transaction has a twofold effect. Every sale, while it increases the cash or claims against others, decreases the stock of goods on hand. The payment of rent decreases cash but results in an increase in services received.

An equilibrium of accounts is maintained by equal entries for every transaction, or in bookkeeping phraseology, a debit for every credit. Debits (from the Latin *debit*, he owes) are shown on the left-hand side of the accounts, credits (from Latin *credit*, he trusts) on the right. The use of these terms is made clear from a consideration of the older or single entry system of bookkeeping, where accounts were kept only with customers and creditors. The debits, naturally enough, were the amounts the customers owed the business, the credits, the amounts they paid in. Conversely, the amounts the business owed were shown as credits, its payments on account as debits.

Since the accounts of our claims against others normally had debit balances, it was natural to show other assets, such as cash, as debits. Hence assets are increased by debits, decreased by credits, liabilities are decreased by debits, increased by credits. Capital, or net worth, altho it is not a liability, but an accountability, is increased by credits and decreased by debits. The rules are clear enough, tho confusion sometimes arises in the handling of economic accounts. Why should expenses be shown on the debit side of an account, income on the credit? All difficulty will be avoided if it is remembered that such accounts are temporary proprietorship accounts; income, or increases of proprietorship or capital, is shown by credits; expenses or decreases, by debits.

3. *What double entry bookkeeping accomplishes.*— There are some lines of business in which it would appear that the simpler the records kept, the better it would be for the proprietor. Consider the proprietor of a small fruit and vegetable stand, or the country grocer who sells for cash. Neither of these proprietors would have a large or assorted stock of merchandise, he has little invested in store and fixtures and these would be easily valued, nor would his liabilities be great since there is little possibility of extensive credit. Under such circumstances, the proprietor would be able to value his stock in trade frequently and, by simply adding the cash and the value of store fixtures, he could obtain a record of his assets. Deducting his few liabilities from the total, he could determine his net worth with ease. A comparison of the net worth at the end of any period with the net worth at

the beginning of the same period, would indicate the profit or loss. A complicated system of accounts or several books of record, here, would be unnecessary and would cause considerable inconvenience.

However, the conditions surrounding all merchants are not similar; many enterprises which have begun in a small way have developed in a broad field until their activities are far-reaching. The mere periodic statement of net worth would be of little assistance. Changes are the result of many and conflicting conditions which should be analyzed in detail. A well-planned double entry set of books assists in the analytical interpretation of all the business activities, showing their effects upon expense and income, and their further effects on the statement of assets and liabilities.

4. *Effect upon ledger accounts.*—Double entry establishes a mathematical balance of all accounts in the beginning and maintains it to the end. In order to accomplish this, each entry as made in any book must provide an "offset" or balancing figure. This offset or balancing figure affects either ownership accounts directly thru assets and liabilities, or indirectly thru the profit and loss account. As a transfer from one asset account to another would not increase the net worth, nor would a transfer from one liability account to another, it should be considered that generally, an increase of income involves an increase of assets, while an increase of expense increases liabilities.

5. *Asset and liability accounts as affected by double entry.*—To illustrate these points above mentioned, let us trace some transactions thru the books. Let us assume that at the outset the proprietor's ledger accounts show the following balances:

Accounts receivable	$4,250	
Cash in bank	3,725	
Purchases	3,000	
Expense	500	
Accounts payable		$1,650
Notes payable		2,000
Sales		3,100
Capital		4,725

In an earlier chapter certain transactions were analyzed as to debit and credit. We may use these transactions and assign them definite values. They are displayed in the double aspect of debit and credit and for convenience they are recorded in the form used when a single book, the journal, contains the record of all transactions as they occur.

1. Upon making a sale (on credit):

Accounts receivable	$ 2,100	
Sales		$ 2,100

Result—Increase in assets, corresponding increase of income.

2. Upon incurring an expense (upon credit):

Expense	$200	
Accounts payable......		$200

Result—Increase in expense and corresponding increase in liabilities.

3. A customer makes a remittance.

Cash	$250	
Accounts receivable		$250

Result—Assets the same in total—merely a transfer.

4. Proprietor sends a note to a creditor to apply on his regular account.

Accounts payable	$500	
Notes payable.........		$500

Result—Liabilities the same in total, merely a transfer.

In this form the entries exhibit the exact balancing which is the characteristic principle of double entry bookkeeping. It is clear that if these transactions are united in a common statement with the preceding balances the equilibrium of the accounts will not be disturbed.

Let us assume that the various entries have been properly made on the double entry principle, and that at the end of the month the following balances are found in the various ledger accounts.

Accounts receivable	$ 6,100	
Cash	3,975	
Accounts payable		$ 1,350
Notes payable		2,500
Purchases	3,000	
Sales		5,200
Expense	700	
Capital		4,725
	$13,775	$13,775

6. *Determining profits.*—Examining this schedule we find the two general classes of accounts represented, those which relate to definite assets and liabilities and those which concern income and expense. By grouping together in parallel columns the accounts which show the expenditures and receipts we can determine the profit or loss of the venture. Before ascertaining the result, however, we must consider the value of merchandise bought during the period which has not yet been sold. This should not be included, of course, in finding the difference between purchases and sales, or the profit, since it is still on hand, and, therefore, an asset. The value of this merchandise in the present instance is \$750. A summary of the results of the transactions follows:

Sales		\$ 5,200.00
Purchases	\$ 3,000.00	
Inventory end of period..	750.00	
Cost of merchandise sold..	\$ 2,250.00	
Expense	700.00	
Merchandise cost plus expense		\$ 2,950.00
Profit for the period.....		2,250.00

The amount of sales, \$5,200, is the gross amount of income that has been received during the period. It will be noticed that the first column shows the value of the purchases and that from this amount has been deducted the inventory at the end of the period, resulting in a figure which is termed the "cost of merchandise sold." To this amount has been added the expenses incurred during the corresponding period and the total has been extended beneath the amount of sales of $5,200. By deducting one from the other, we arrive at the amount indicated as the profit for the period, or $2,250. In this example there was no inventory of merchandise on hand at the beginning of the period.

7. *Balance sheet.*—Now in order to prove whether the amount of $2,250 is in accord with facts, we may summarize the accounts representing assets, liabilities and the capital of the proprietor.

Cash		$3,975.00	
Accounts receivable...		6,100.00	
Inventory on hand...		750.00	
Accounts payable			$ 1,350.00
Notes payable.......			2,500.00
Capital	$ 4,725.00		
Profit	2,250.00		6,975.00
		$10,825.00	$10,825.00

In one column we have shown all the assets consisting of three items and totalling $10,825. In another column we have shown the liabilities, accounts payable and notes payable. We have also shown in this column the value of the capital at the end of the period, $6,975. This amount is equal to the capital at the beginning, plus the profit made during the period, thus proving our statements.

8. *The advantages of double entry bookkeeping.*—The double entry system of bookkeeping affords a number of advantages that can be enumerated as follows:

It provides for accounts representing every item of wealth possessed by the business, and for every debt owed by the business.

It sets up an account or accounts representing the net worth or proprietorship.

It arranges separate classified accounts so that they disclose the expenses of the business, the income and the character of each class.

It affords a basis for recording accurately the business activities, the effects and results; thus furnishing a sound basis for the proprietor in his planning.

By having equal and offsetting entries for each transaction, it provides for an automatic check on the accuracy of the records.

Double entry bookkeeping also furnishes readily available information for statistical records.

REVIEW

What are the two systems of bookkeeping? How are they related?

Upon what fundamental principle is the double entry system based?

What are the advantages of this system?

CHAPTER V

BOOKS OF ACCOUNT

1. *Primary books.*—In Chapter II we noted that transactions were recorded in books of original entry, or journals, and in books of subsequent entry, or ledgers. These are the two types of essential books of account. In one class are made the primary entries of transactions as they occur. In the secondary books of subsequent entry transactions appear again in the classified form of accounts. The process of transferring the records from the primary books to the secondary books is called posting.

Since business transactions affect not only the financial standing of the proprietor, but the interests of those with whom he does business, it is important that each transaction receive immediate and careful attention. Memory should play no part in the keeping of accounts, which should be based on data of unquestioned authenticity, such as is afforded by records made when the transactions occur. These chronological records constitute the books of original entry. These records need not, it is true, be placed in a bound book, but in whatever form they are kept, they should be made at the time the transaction takes place, and should be so stated that their authority cannot be questioned.

It is natural to assume that the chronological record would be kept somewhat in this fashion:

January 2, 19—

Check re'd from Jacob Abbot, invoice 12/20	$102.28
Paid bill for new desk	37.00
Sold John Rodgers, on %	17.50
Drew from bank for petty cash	10.00

That is, the date, transaction, and account would be jotted down, together with any necessary explanation. As we have learned, however, each transaction has a twofold effect, that is, it affects both debits and credits.

Without interfering with the chronological arrangement we can take a step toward systematization by indicating, when the record is made, the debits and credits which the transaction involves. The book which provides for this classification is the journal. Each journal entry must indicate what was transferred and the consideration accepted for the transfer. The exchanges recorded must indicate equality of value in respect to debits and credits, and be so fully explained, that at any subsequent date the nature of the transaction may be understood.

The simplest form of journal provides columns for the following information:

1. Date of the transaction
2. Name of the accounts affected
3. Explanation of the transaction
4. Ledger folio
5. Debit and credit amounts.

The transactions noted above would appear in the journal as follows:

JOURNAL

	1919			
L. F.	Jan. 2	Cash	$102.28	
		Jacob Abbot, on a/c		$102.28
		Furniture and Fixtures	37.00	
		Cash		37.00
		New desk purchased from ABC Furniture Company		
		John Rodgers	17.50	
		Sales		17.50
		1 table		
		Petty Cash	10.00	
		Cash		10.00
		To establish petty cash fund		

In making these entries, it is important to follow the form accountants have evolved from long practice: thus debits should precede credits, the credit entry should be indented—much as the first word of a paragraph is indented, and the amounts to be posted should be clearly stated. Further, the date—year, month and day—should always be entered, either in a column for the purpose or on the line above the entry, and the explanation should be so ample that even an outsider can understand what has taken place. An exchange entirely comprehensible on the day it was made may be forgotten in a month. Any unusual features brought to light by the auditor might be hard to explain. Further, should the books be presented as evidence in court, an entry too brief in substance or undated would be of little value. The form of the books may be changed to suit the requirements and desires of the management, but in all cases the journal exhibits the transactions in the order in which they occur.

As time went on, it was noted that some accounts, especially the cash account, were very active—that is, that many entries relating to this account were made. The next advance in account-keeping was the division of the journal into two books—one wherein all transactions affecting cash were entered, the other—or general journal—for all other entries. The segregation of all items affecting cash enabled more than one clerk to make entries at the same time, resulting in a decided saving in time. This principle has also been extended to purchases and sales, so that individual journals are used for each of these accounts. At present, only transactions of an unusual or infrequent nature are recorded in the general journal, tho all the subsidiary books of original entry, such as the cash, purchase, and sales book, are but offshoots of the old general journal.

2. *The cash book.*—The record of transactions involving the current exchange of "cash" or its equivalent, checks or money orders, is made in a separate journal, known as the cash book. The simplest form of cash book is ruled like the journal. On the left-hand page are recorded receipts of cash, on the right, disbursements. Entering a receipt of cash is called "debiting cash," entering a disbursement, "crediting cash." These expressions were undoubtedly introduced upon the theory that the cashier was the custodian of the cash and when cash was paid into the

business the cashier should be charged or debited with the amount. Under the same theory the cashier should be given credit for all payments which he makes from the fund for the firm's account, and for this reason the "cash account" should be credited.

3. *Form of the cash book.*—The actual recording of receipts and disbursements can be illustrated in a simple form of cash book as follows:

DR.

CASH RECEIPTS

For the month of January, 19—

Day	Account and Explanation	Folio	Amount	Total
Jan. 2	John Simons Inv. 12/16	22	$300.00	
6	Frank Takof " 12/10	27	250.25	
10	Richard Arkwright " 10/25	31	562.25	
	Debit Cash Account	5		$1112.50

CR.

CASH DISBURSEMENTS

For the month of January, 19—

Day	Account and Explanation	Folio	Amount	Total
Jan. 2	Pay Roll—Clerks Jan. 3	101	75.00	
5	Harold Reede Inv. 12/10	52	60.00	
10	Franklin Adams Drawing Account	200	100.00	
	Credit Cash Account	5		235.00

Expressed in journal form the records would read:

Cash (debited)		$1112.50	
Sundry Credits			
John Simons	Inv. 12/16		$300.00
Frank Takof	" 12/10		250.25
Richard Arkwright	" 10/25		562.25
Pay Roll (debit)	Jan. 3	75.00	
Harold Reede (debit)	Inv. 12/10	60.00	
Franklin Adams—Drawing Account (debit)		100.00	
Cash (credit)			235.00

Upon reference to the form it will be noted that the pages are marked Dr. and Cr., indicating the effect of the entries upon total cash assets; that is, their increase or decrease even tho it may be only temporary.

4. *Posting.*—The receipts, presumably from customers, should be credited to the respective customers' ledger accounts. The ledger folios should be indicated in the column provided in the cash book, and in the ledger accounts of the respective customers the page of the cash book where the entry is found should be noted. The total amount of cash received should be debited to the ledger account "cash."

The disbursements should be posted separately to the debit of the accounts indicated. The cash book and the ledger accounts should be marked as to folios. The total amount of disbursements should be credited to the ledger account "cash."

The cash account in the general ledger here given would then reflect the cash transactions in total.

CASH ACCOUNT

Dr.		Cr.	
January receipts	$1,112.50	January disbursements	$ 235.00

The equilibrium of accounts has been maintained, and the total of the debit postings of the disbursements equals the credit to the cash account, and the total of the credit postings of receipts equals the debit to the cash account.

5. *The office cash records—petty cash.*—In every line of business there are certain kinds of expense which must be paid in cash at the time an article purchased is delivered or the service is rendered, and for such expenses an office should be provided with a sum of money in currency. Such a sum is known as the "office cash" or "petty cash" fund. Many merchants set aside from the regular receipts of currency a small sum to be employed as petty cash, but when this is done a small portion of the recorded receipts would not be deposited in the bank. If the cash book shows a record of check disbursements only, while petty cash disbursements are recorded in a separate petty cash book, it will be necessary to check both the general cash book and the petty cash book entries in order to "prove" or "reconcile" the amount of total cash at the end of each day. Simplicity of method will always help toward efficiency, and the definite separation of the petty cash fund from the general fund will simplify the work of the cashier's department.

6. *Separating cash on hand and on deposit.*—The practice is to deposit in the bank all receipts of money, whether in the form of checks, money-orders or currency, and to draw upon the bank deposit for office cash. A check should be drawn and cashed at the bank, the money received should be placed in the safe

and the amount should be recorded in the petty cash record. Then as disbursements are made in currency the amount of each disbursement can be recorded in the same book. The difference between the amount of money turned over upon cashed checks and the amount disbursed would represent the cash (currency) on hand. As a result of this physical separation of the funds, the bank balance could be reconciled with cash book entries alone. As cash is paid out from the petty cash fund, other checks are drawn, cashed, the amounts charged to the fund and recorded in the petty cash record book.

7. *Imprest method of petty cash record.*—Under modern methods of accounting a special system of petty cash records has been established, known as the "imprest method." This method establishes a specific sum of money as a fund to be employed for making necessary "cash disbursements." The fund should be maintained in the original amount or be supported with written evidences that proper disbursements have been made. The object is to make the cashier responsible at all times for the safeguarding and the accounting of a specific sum of cash.

In inaugurating the imprest method all cash on hand should be deposited, as already suggested in the foregoing paragraph. Then before drawing a check to be cashed, the size of the fund that is to be maintained, which would vary in different offices, should be determined. Twenty-five dollars would be sufficient to meet all expenses for a month in some small offices, while many large offices have found that several hundred dollars is inadequate. An excellent plan is to set aside enough cash to provide for one week's requirements.

8. *Handling the imprest record.*—The amount of the check drawn for cash should be charged thru the cash book to the "imprest cash fund account," an account to be kept in the general ledger. The amount should also be entered in the petty cash book, representing the fund, and cash should be retained in a box or safe drawer apart from other money. As disbursements are made, the cashier should secure from the person receiving the money a signed receipt and should attach to the receipt any written evidence that may be secured at the time of making the payment. Each disbursement of over a certain specified amount should be approved by the cashier or person in charge of the office employes.

Assuming that the imprest fund established amounted to $100 and that during the week disbursements had been made and evidenced by vouchers which totaled $56.40, a voucher would be prepared and turned over to the proprietor or head of the department and a check be drawn for the amount of $56.40 and cashed at the bank. The money so received would reestablish the fund to the amount of $100.

If the various petty cash tickets representing disbursements are attached to the main voucher (written evidence), it is unnecessary to enter another record of the disbursements in the petty cash book. It is also quite obvious that if the person in charge of the fund is accountable for $100 in cash, the evidence of disbursements need not be retained by him if this main voucher is approved before the check is drawn. The detailed summary shown upon the main voucher is posted to the debit of the proper accounts and the total entered in the cash book as a disbursement. Under this practice no further entry need be made in the imprest (petty cash) book.

9. *Posting from the petty cash book.*—If the imprest method be adopted, it will be discovered upon brief examination that the records can be more readily kept if the disbursements are summarized each week in the petty cash book. The total amount of the summary will represent the amount of the new check to be drawn and an entry should be made in the same book showing receipt of the cash. By adding together at the end of the month the summaries entered, the total amount of petty cash disbursements can be readily determined, and the postings made from the final summary, thus saving work. The record of the amount of each check entered in the cash book can be posted to the debit of the "imprest cash fund account." By posting the total monthly disbursements to the credit of the same account in the general ledger, the equilibrium of the ledger will be maintained. A simple form of petty cash book is here shown.

PETTY CASH BOOK

Date	Checks Cashed	Amount	Date	Payments	Amount
19—			19—		
Jan. 2	Check No. 76	$20.00	Jan. 2	Postage	$2.00
5	Check No. 122	14.70	2	Car fare	.50
			3	Express	2.20
			4	Travel	10.00
				Total	14.70
				Balance	20.00
		34.70			$34.70
	Balance	$20.00			

The total debits are posted to petty cash account—from cash book.

Total credits posted to petty cash account—from petty cash book.

10. *The sales book.*—The sales book, like the cash book, developed as the number of transactions increased. Every business man is familiar with the sales invoice generally employed. It represents the merchant's demand for money in exchange for goods or services. It becomes to the purchaser, the purchase invoice, and a voucher for evidence of payment. The entries to the sales journal are made from these sales invoices. The total amount of the sales invoices for a period would be posted to the account "sales," and would represent the total sales or gross income from regular business operations.

The sales book is ordinarily in the same form as the regular two-column journal. It may vary with the type of business, however, and is often only a number of the sales invoices bound together. If sales returns are sufficiently numerous, a separate book may be devoted to them also.

11. *The purchase book.*—Purchases form the third class of transactions so numerous in ordinary business that a separate book is devoted to them. As each purchase invoice is received, the quantities and material charged for should be verified by comparison with the quantities received and the prices noted in the invoice compared with those established at the time of making the purchase. When proper verification has been made, the amount of each invoice is entered in the purchase journal. The entry should include the date of the invoice and the name of the creditor, together with the terms of discount, if any.

The amount of each invoice, when recorded in the purchase journal, should be credited to the proper creditor's account; the total amount of all invoices received is debited to the "Purchases" account. The equilibrium of debits and credits is maintained, since the total debit to purchases is equal to the sum of all the individual credits.

The similarity of the books of original entry discussed in this chapter should be clearly apparent. They are all of the journal type, in fact sub-divisions of the journal. With this larger conception of the journal it remains true that every transaction must pass thru the journal before it enters the ledger, which classifies transactions according to type.

Because the writing up of the journal or journals is preparatory to the establishment of the accounts in the ledger, the term "books of original entry" has arisen. It implies a subsequent entry.

REVIEW

What is a book of original entry?

What information regarding each transaction is recorded in the journal?

Explain how some of the functions of the general journal have been turned over to subsidiary books.

For what purpose is a petty cash book used? Explain the operation of the imprest system of handling petty cash.

To what use is the sales book put? How may it be changed to suit the needs of the business?

CHAPTER VI

BOOKS OF ACCOUNT (Continued)

1. *Secondary books.*—While there seems to be a certain prestige which attaches to the books of original entry discussed in the last chapter, it is to be remembered that they are not an end in themselves, but in a large measure they are a preparation for other books. These secondary books or books of subsequent entry are in some respects the keystone of the whole accounting system. It is from them that the information concerning the financial status of the business and its progress is directly gained. The journal was the parent stem from which all the other books of original entry grew. In like manner the general ledger is the central point, often the only point, in the group of books of subsequent entry.

2. *General ledger.*—A general ledger is a book of final record made up of accounts representing all the activities of the business. From the trial balance drawn from it at the end of any fiscal period, statements of assets and liabilities, and profit and loss, can be prepared. The arrangement of the accounts is purely a matter of convenience. Modern practice has suggested that the asset and liability accounts be opened in the fore part of the book and that the profit

and loss or economic accounts follow. This arrangement corresponds in general to the way the accounts appear upon statements.

The balances of the accounts in the general ledger exhibit a summary of business to the proprietor and give him a record to which he can turn from time to time, in order to "get a line" on past financial conditions. The detail supporting the accounts in the general ledger is of course shown in the books of original entry.

3. *Form of a ledger account.*—Every entry made in a book of original entry affects two sides of the ledger, the debit and the credit. The ledger, being a book of equilibrium, provides for accounts to which may be posted either debit items or credit items; therefore, all accounts in one ledger are alike in form, but there are many different forms.

The form which is most frequently employed is as follows:

CASH

DR. CR.

Jan. 1	Balance	$ 5,000.00	Jan. 31	Disbursements	$ 2,675.00
31	Receipts	2,550.50	Feb. 28	"	3,750.00
Feb. 28	"	3,625.50		Balance	4,751.00
		$11,176.00			$11,176.00
	Balance	$ 4,751.00			

The left hand side is for the entry of debits and the right hand side shows credits only. The difference between the totals of the two sides is the balance of the account; when the debit total exceeds the credit total the balance is called a debit balance. The balance of the account illustrated is a debit balance of $4,751.00, representing the cash on hand February 28. This balance may be shown in a different form of account.

CASH ACCOUNT

		Debit.	Credit.	Balance.
Jan. 1	Balance	$5,000.00		
Jan. 31	Receipts	2,550.50		$7,550.50
Jan. 31	Disbursements		$2,675.00	4,875.50
Feb. 28	Receipts	3,625.50		8,501.00
Feb. 28	Disbursements		3,750.00	4,751.00

In the form illustrated above, the debit postings are made in a column at the left and the credit postings are made in a column at the right in quite the same manner as in other illustrations, but the balance is always extended to the third column. This is called a "three column ledger, balance to the right."

4. *Posting.*—As postings are made from the books of original entry, the various folios should be indicated in the ledger accounts. For instance, the total of the sales is posted at the end of the month to the credit of the gross sales account:

January 31 Sales for January SJ-27 $6,550

The letters SJ indicate the name of the book, the sales journal, and the figure 27 the page on which the original entry is found. Every ledger posting should be properly and concisely explained for the information of the person who examines the account, and the explanation should serve at a future date quite as well as at the time the entry is made.

5. *Classifying the accounts.*—It has already been suggested that the accounts of a ledger should be arranged according to some basic plan. In addition to showing the "asset accounts" in the first section of the ledger, followed by the liability accounts in a second section, and in a third and fourth section by the profit and loss accounts, it is also an excellent plan to have all accounts arranged in a systematic manner in relation to the respective parts or sections of the ledger. That is, we would arrange the asset accounts according to their convertibility into cash and we would arrange the liability accounts in accordance with the necessity of their liquidation. The profit and loss accounts would be divided as to (1) income and (2) expense, with each group arranged in as logical a sequence as possible. Thus, for example, the primary income and expense accounts which represent the gross profits on merchandise sold might well be followed by selling expenses, administrative expenses, and so forth.

Accounts should be sufficiently numerous to be properly analytical. Each account should indicate one kind of information and should not be in the least complex. The "merchandise account" employed by many merchants is complex. It is often called a "mixed account" and shows among the debits the inventories, the purchases and the sales returned; upon the credit side are shown sales and purchase returns.

The balance does not exhibit an intelligent result, as it is neither purchases net nor sales net. The "merchandise account" has therefore been eliminated from many general ledgers, and in its place the following accounts have been introduced, the name of each account indicating the character of its contents.

Gross sales—an income account—credit balance
Sales returned—a deduction from sales—debit balance
Purchases—the value of all merchandise purchased, the consumption being charged against sales—debit balance
Purchases returned—a deduction from purchases—credit balance
Inventory account—a debit balance.

Accounts should show by their titles the character of their contents exactly so that a person auditing or examining an account would not be misled in the slightest degree. Suppose that an account designated as "office expense" should include charges representing automobile hire for trucking merchandise to or from the freight train. The title would not represent the contents of the account. It would be a mixed account and would lead to confusion. The rent account, for example, should exhibit rent items only; the "interest account," items of interest only, and the interest should be divided to show interest earned in one account and another account to show interest expense. Thus by referring to the "interest earned" account, we would see items of credit only, and by referring to the "interest expense" account there would be debit items only. In all cases, the title of the account should clearly indicate its nature.

6. *Subdividing the ledger.*—Our reason for installing cash, sales, and purchase journals was to relieve the general journal of certain types of transactions frequently recurring. It was also to subdivide the work of making the original entries in such a way as to permit several persons to work on the books at the same time. A like need for division of labor exists in the ledger. If one book contained the detail of all the accounts, it would tax the time and strength of a single man—for only one man could work on the book—to keep the postings up to date.

This difficulty is overcome by segregating certain types of transactions and opening separate ledgers for them. The most familiar of these subsidiary ledgers are the accounts receivable and the accounts payable ledgers. The use of such books eliminates the personal accounts from the general ledger. Of course, such accounts may be further subdivided by the alphabet or by any other convenient method of division.

7. *Controlling accounts.*—Now it must be clear that if a single account is taken out of the ledger the equilibrium of accounts is disturbed and the book will no longer balance. This is still more obvious if whole groups of accounts as of customers or of creditors are removed. Since the mathematical equilibrium of the accounts is a fundamental principle of the general ledger, means must be found for restoring it.

Such a means is found in a controlling account, which is nothing more nor less than a summary without details of the contents of the separate ledger.

While the exact balance is thus restored in the general ledger, it is clear that unless all transactions, both debits and credits, are fully recorded, there will never be an exact equilibrium in the separate ledgers.

8. *Subsidiary ledgers.*—Subsidiary ledgers are commonly called the "underlying ledgers." The most frequent are the accounts receivable ledger and the accounts payable ledger. The totals of these account balances are controlled by two accounts of the same name kept in the general ledger. Whatever information is posted to either of these ledgers from the books of original entry must be summarized each month and posted in total to the controlling accounts. Probably the most satisfactory form of underlying ledgers of this character is the loose-leaf book alphabetically indexed, with tabular page indexes. Card ledgers are also employed as subsidiary ledgers and will be further discussed.

A CONTROLLING ACCOUNT

ACCOUNTS RECEIVABLE

19—						19—					
Jan.	1	Balance		6216	16	Jan.	31	Cash Rec'd.	CB-18	3750	11
	31	Sales for month	SJ-6	4225	52		31	Credits	J-11	12	64
	31	Adjustments	J-10	5	42		31	Balance		6684	35
				10447	10					10447	10
Feb.	1	Balance		6684	35						

The total of the balances shown in the accounts receivable ledger January 31 should equal $6684.35.

9. *The private ledger.*—Sometimes a private ledger is termed a subsidiary ledger, but this designation is incorrect. Information shown in a private ledger is not taken from entries in the general books, but is in a measure the result of compilations of the information shown in the general ledger accounts representing income; and charges and expenses levied against income. The private ledger also provides for the chief accounts shown upon the balance sheet other than cash, accounts receivable, and accounts payable.

The purpose of the book is to provide for the capital accounts of the business and the accounts representing the manner in which a large portion of the capital is invested. These accounts would be affected usually only at the end of each fiscal period, and would be entered in the ledger from a private journal as the book of original entry. The general ledger would show all active accounts and the private ledger the stable accounts such as furniture and fixtures, special investments and funds, dividend accounts, partners' or officers' salaries, profit and loss summary, capital, surplus, and others, the information shown in each being for the use of the management only. The private ledger is supported by a separate journal, possibly bound in the same volume.

10. *Memorandum books.*—In addition to the books of original entry and those of final entry, other books employed for memorandum purposes only are, under certain circumstances, very useful to the management

and often absolutely necessary. A few of these books may be noted.

Notes receivable book is a detailed record of all notes receivable held by the management, providing columns for the date of the note, the maker's name, the term to run, the due date, the amount and remarks. As notes are paid or renewed, a record should be made in the remark column. Records in regard to "notes payable" are kept in the same manner.

Inventory books should be kept for the purpose of recording at the end of each fiscal period the quantity of merchandise on hand.

A daily report or summary book would show the condition of certain accounts such as "cash in bank" and "accounts receivable" at the end of each day. A record of the day's sales, those representing credit sales and those representing sales for cash, would also be kept in this book.

A trial balance book might be termed a "memorandum," but in reality it is a part of the accounting set as it is required in order to show the proof of the ledgers. This book provides for the names of all ledger accounts and the balances of each, which would be extracted at the end of each month and classified according to debits and credits so that they could be footed. The total of the respective footings should be equal.

11. *Statistical books.*—Other records compiled by the accounting department are those books employed for the purpose of showing statistical information.

Prominent among these might be a "labor record" which is made up of weekly reports showing the number of operators employed, the total hours worked, the number of injuries reported, the number of discharges, and a record of the new employes.

Another would be a production record showing the quantity of merchandise produced daily, the cost of the production and its condition according to the inspector's report. These statistical records are kept for the purpose of giving specialized, detailed information. They have little or no relation to a definite system of bookkeeping and afford no automatic means of detecting errors.

REVIEW

Why does the term ledger not necessarily refer to one book?

As accounts become numerous, which are usually removed from the general ledger? Explain the use of controlling accounts.

Why is a private ledger sometimes used? How is the relation between it and the general ledger shown?

In what order should ledger accounts be grouped?

What subsidiary books may be useful, in addition to the regular books of account, in some business with which you are familiar?

CHAPTER VII

APPLYING ACCOUNTING PRINCIPLES—THE ORIGINAL ENTRIES

1. *Organization of a wholesale and retail business.*—The general principles of bookkeeping practice have been considered. It remains to apply them in actual use. This can best be done by a review of the books covering a series of transactions.

The following are the transactions:

January, 2, 19—.

A. Roberts began a wholesale and retail carpet business and invested cash \$10,000.00, which he deposited at the Central Bank.

He rented a store and basement at Main Street, on a five (5) years' lease at a yearly rental of \$1,800.00, payable monthly in advance, and paid by check his rent for the month of January. He engaged a bookkeeper at a weekly salary of \$20.00; a stenographer at \$15.00; and a clerk at \$10.00.

3.

He bought of King & Company, the following:

6 pieces Ingrain, 1,109 yds. a piece at . . .	\$ .55½	per yd.
3 pieces Moquette, 887 yds. a piece at . . .	1.25	" "
2 pieces Brussels, 915 yds. a piece at	.92¼	" "
2,000 yds. assorted Oilcloth at	.19½	" "
3,000 yds. assorted Oilcloth at	.16¾	" "
2,000 yds. assorted Linoleum at	.48½	" "

4.

He paid King & Company on account \$2,000.00 and gave his three months' note, bearing 4% interest, for the balance.

He insured store and contents with the Hanover Fire Insurance Company, for \$15,000.00 and paid premium at $1\frac{1}{16}\%$, by check.

5.

He paid by check to J. Walters \$250.00, viz—for sundry shelving \$75.00, furniture and fixtures \$175.00.

Cash sales today were as follows:

26 yds. Moquette at	\$1.87	per yd.
12 yds. Linoleum at	.60	" "
16 yds. Oilcloth at	$.20\frac{1}{4}$	" "

6.

Sold to Girard & Company, Buffalo, New York, the following:

150 yds. Ingrain at	\$ $.69\frac{1}{2}$	per yd.
300 yds. Oilcloth at	$.22\frac{1}{8}$	" "

Terms 2/10, n/30.

7.

Sold to B. Eckert & Son, City, the following:

200 yds. Brussels at	\$1.22	per yd.
500 yds. Oilcloth at	$.22\frac{1}{8}$	" "
300 yds. Linoleum at	$.56\frac{1}{2}$	" "

Received in part payment check for \$200.00, balance due in 10 days.

Cash sales today were:

56 yds. Linoleum at	\$ .64	per yd.
39 yds. Oilcloth at	.25	" "

Paid salaries in cash and deposited all cash on hand in the bank.

9.

Bought at auction 1,000 yds. oilcloth at 14¢ per yd.; 1,000 yds. linoleum at 40¢ per yd., for which he gave his check.

Withdrew by check for private use \$50.00.

10.

Girard & Company remit for bill of the 6th inst., by check.

Sold to Eastern Rug & Carpet Company the oilcloth and linoleum bought at the auction at 10% profit on cost price.

11.

Received check from the Eastern Rug & Carpet Company for bill of the 10th inst.

Cash sales today are as follows:

26 yds. Ingrain at	$ .80	per yd.
40 yds. Moquette at	1.75	" "
18 yds. Brussels at	1.40	" "
48 yds. Linoleum at	.54	" "

12.

Bought of Hooker & Sons, City, the following:

1,500 yds. Wilton at	$2.25	per yd.

Terms 5/10, 2/30.

Sold M. Phillips, Buffalo, N. Y., the following:

350 yds. Wilton at	$2.85	per yd.
250 yds. Brussels at	1.05	" "
1,000 yds. Oilcloth at	.19⅛	" "

13.

Eckert & Son remit by check balance due us.

Cash sales today are as follows:

22 yds. Brussels at	$1.40	per yd.
52 yds. Linoleum at	.54	" "

Paid for sundry advertising by check $28.50; paid in cash for sundry petty expenses $12.39.

14.

Sold to William Johnson & Bros., Troy, N. Y., the following:

1,000 yds. Ingrain at	$ .64¾	per yd.
500 yds. Wilton at	2.85	" "
600 yds. Moquette at	1.50	" "

Received in payment check for $500.00, their 15 day note for $1,000.00, balance due in 20 days.

Paid salaries in cash; paid also for freight and deliveries on sales, $22.16 in cash.

Deposited all cash on hand in the bank.

16.

Discounted Johnson & Bros.'s note at the bank and had proceeds, less 6% discount per annum for unexpired time, placed to the credit of the business.

Paid Hooker & Sons' invoice of the 12th inst.

Cash sales today were 89 yds. oilcloth at....$ .21 per yd.

18.

Sold Eckert & Sons the following:

250 yds. Wilton at	$2.85	per yd.
250 yds. Brussels at	1.05	" "

Terms 2/10, n/30.

Sold Foster Bros., City, the following:

350 yds. Ingrain at	$ .65½	per yd.
300 yds. Moquette at	1.50	" "
500 yds. Oilcloth at	.19⅛	" "

Received in payment check for $300.00, balance due in 30 days.

19.

Bought of P. Jacobs & Sons, City, the following:

1,000 yds. Wilton at	$2.22½	per yd.
1,000 yds. Oilcloth at	.16½	" "
1,000 yds. Linoleum at	.47½	" "

Terms 3/30, n/60.

Cash sales today were as follows:

112 yds. Ingrain at	$ .80	per yd.
38 yds. Brussels at	1.45	" "
62 yds. Oilcloth at	.21	" "

20.

Roberts this day discounted at the bank his 60 days' note for $2,000.00 and had proceeds, less 6% discount per annum, placed to his credit.

By special arrangement Jacobs & Sons allowed 5% instead of 3% discount for prepaying, today, invoice of the 19th inst.

Paid by check for sundry printing matter, $21.30; for advertising, $28.50.

Paid sundry petty expenses, $11.85.

21

Cash sales today are as follows:

63 yds. Ingrain at .... $ .80 per yd.
42 yds. Brussels at .... 1.40 " "
86 yds. Oilcloth at .... .21 " "
52 yds. Linoleum at .... .64 " "

Withdrew for private use, \$100.00; paid salaries in cash, \$55.00; for sundry postage, \$2.85; sundry petty expenses, \$1.87.

23.

Sold to R. Roberts, City:

500 yds. Wilton at .... $2.80 per yd.
500 yds. Linoleum at .... .60 " "

Received his check for \$500.00, balance due in 10 days.

Paid to A. Simpson 5% commission on above sale by check.

25.

Sold to James Farrott & Company, Troy, N. Y., the following:

500 yds. Wilton at .... $2.80 per yd.
500 yds. Linoleum at .... .60 " "
500 yds. Oilcloth at .... .10 " "

Terms 2/10, n/30. Paid freight on same, \$18.65 in cash.

Roberts made a special agreement with King & Company whereby he prepaid his note of the 4th inst. as follows: Roberts pays them in cash \$5,000.00 and issues to them a 30 days' non-interest-bearing note for the balance; they are waiving their right to interest.

Roberts drew for his own personal use, \$200.00 in cash.

Paid advertising bills, \$112.00. Paid for cleaning windows, \$2.30.

26.

Paid to A. Simpson 5% commission on sale to Farrott & Company.

Cash sales today were as follows:

125 yds. Oilcloth at .... $ .21 per yd.
42 yds. Brussels at .... 1.45 " "

Paid in cash sundry petty expenses, \$1.65.

27.

Bought of King & Company, the following:

2,000 yds. Linoleum at	$ .48	per yd.
1,000 yds. Brussels at	.92	" "
2,000 yds. Oilcloth at	.19	" "

Gave in payment our check for $1,000.00, our 30 days' note for the balance.

28.

Paid in cash salaries, $60.00; sundry office expenses, $2.96.

Deposited all cash on hand.

Sold to Wm. Johnson & Bros., Troy, N. Y.:

300 yds. Wilton at	$2.88	per yd.
400 yds. Ingrain at	.66	" "
400 yds. Linoleum at	.54	" "

Terms 2/10, n/30. Pay Simpson commission on above sale, 5% in cash.

Sold to Maxwell & Company, Albany, New York, the following:

1,000 yds. Ingrain at	$ .66	per yd.
300 yds. Moquette at	1.50	" "
300 yds. Brussels at	1.05	" "
500 yds. Linoleum at	.55	" "
500 yds. Oilcloth at	.19¼	" "

Received in payment check for $500.00; a note dated January 4 given to them by B. Roberts of Albany, and amounting to $700.00, with 5% interest for 60 days, less 6% discount for unexpired time; balance due in 10 days.

The bank notified Roberts that Johnson & Bros. have honored their note.

30.

Sold to Brolt & Co., Albany, N. Y., the following:

300 yds. Brussels at	$1.15	per yd.
500 yds. Linoleum at	.60	" "
500 yds. Oilcloth at	.19	" "

Received in payment check for $300.00, their 30 days' note, with 6% interest for balance.

Cash sales today were 25 yds. Brussels at...$1.45 per yd.

31.

James Farrott & Co. remitted for bill of the 25th inst., by check.

Sold F. Peters & Bro., City, the following:

300 yds. Oilcloth at....................	$ .22½	per yd.
200 yds. Linoleum at.................	.65	" "

Terms 2/10, n/30.

Cash sales today were as follows:

92 yds. Linoleum at....................	$ .63	per yd.
57 yds. Moquette at....................	1.85	" "
86 yds. Oilcloth at......................	.21½	" "

2. *Illustrations of the various books used by Roberts.*—Roberts had an expert accountant install his accounting system; according to this the following books are used:

1. Journal.
2. Cash Book.
3. Sales Book.
4. Purchase Book.
5. Ledger.

At the request of Mr. Roberts, the accountant installed these books in their simplest form, so that the former would have no difficulty in ascertaining the general result of his business activities.

All of the columns are headed so that there will be no difficulty in properly recording all the transactions of Mr. Roberts' business.

JOURNAL

January, 19—.	L.F.	Dr.		Cr.	
2.					
Have this day rented a store and basement at Main Street, on a five (5) years' lease at a yearly rental of $1,800.00, payable monthly in advance.					
4.					
King & Company.	5	8,562	40		
To Notes Payable.	4			8,562	40
My three (3) months' note, @ 4% interest, for balance due them on bill of Jan. 3.					
14.					
Notes Receivable.	1	1,000	00		
To William Johnson & Bro.	3			1,000	00
Their 15-day note for part of bill of even date given me.					
25.					
Notes Payable.	4	8,562	40		
To Cash (Posted).	√			5,000	00
Notes Payable.	4			3,562	40
I have made a special agreement with King & Co whereby I prepay my note of the 4th inst. as follows I pay them, in cash, $5,000.00, and issue to them a 30-day note for the balance; they are waiving their right to interest.					
27.					
King & Co.	5	1,260	00		
To Notes Payable.	4			1,260	00
My 30-day note for balance of invoice of today.					
28.					
Notes Receivable.	1	700	[illegible]		
Interest Lost	8	5	[illegible]		
To Maxwell & Co., Albany, N. Y.	4			701	30
Discount Gained	6			4	23
Received note dated 1/4/19— made by B. Roberts of Albany, for $700.00, with 5% interest for 60 days less 6% discount for unexpired time.					
30.					
Notes Receivable Discounted.	5	1,000	00		
To Notes Receivable.	1			1,000	00
Bank notifies me that Johnson & Co. have paid their note.					
30.					
Notes Receivable.	1	440	00		
To Brolt & Co., Albany, N. Y.	4			440	00
Received their 30-day 6% interest-bearing note for the invoice of today.					

JOURNAL (Continued)

January, 19—.	L.F.	Dr.		Cr.	
31.					
Unexpired Insurance.	2	146	10		
To Insurance.	8			146	10
To set up the amount of insurance unexpired as of Jan. 31, 19—.					
31.					
Accrued Interest on Notes Receivable.	2	2	70		
To Interest.	8			2	70
Interest accrued on Notes Receivable to Jan. 31, 19—.					
31.					
Salaries.					
To Salaries Accrued.	7	20	00		
Salaries accrued for Jan. 30 and 31, 19—.	5			20	00
31.					
Merchandise Inventory.	1	6,602	19		
To Merchandise Purchases.	6			6,602	19
To enter the merchandise inventory on the books.					
31.					
Merchandise Sales.	6	15,982	84		
Discount Gained.	6	4	23		
Cash Discount.	6	272	69		
To Profit and Loss	9			16,259	76
To close out the above income accounts.					
31	9	13,922	72		
Profit and Loss.					
To Merchandise Purchases.	6			13,000	21
Freight Outward.	6			40	81
Commissions.	7			241	95
Advertising.	7			169	00
General Expenses.	7			35	87
Printing.	7			21	30
Salaries.	7			225	00
Insurance.	8			13	28
Rent.	8			150	00
Interest.	8			3	13
Discount Lost.	8			22	17
To close out the above expense accounts.					
31.					
Profit and Loss.	9	2,337	04		
To A. Roberts, A Drawing Acct.	1			2,337	04
To transfer profit to A. Roberts drawing account.					
31.					
A. Roberts Drawing Acct.	1	1,987	04		
To A. Roberts, Capital.	4			1,987	04
To transfer his drawing account to his capital account.					

PURCHASE BOOK

Date		*L.F.*	*Name and Address*	*Terms*	*Explanation*	*Extensions*	*Total*
19—							
Jan.	3	5	King & Company, City		6 pieces Ingrain, 1,109 yds. a piece		
					@ $ .55½ per yd	$3,692 97	
					3 pieces Moquette, 887 yds. a piece		
					@ 1.25 per yd.	3,326 25	
				On account	2 pieces Brussels, 915 yds. a piece		
					@ .92¼ per yd.	1,688 18	
					2,000 yds. Assorted Oil Cloth		
					@ .19⅛ per yd.	382 50	
					3,000 yds. Assorted Oil Cloth		
					@ .16¾ per yd.	502 50	
					2,000 yds. Assorted Linoleum		
					@ .48½ per yd.	970 00	$10,562 40
	9	√	Auction	Cash	1,000 yds. Oilcloth @ $ .14 per yd.	$140 00	
					1,000 yds. Linoleum @ .40 per yd.	400 00	540 00
	12	5	Hooker & Sons, City	5/10, 2/30	1,500 yds. Wilton @ $2.25 per yd.	$3,375 00	3,375 00
	19	5	P. Jacobs & Sons, City	3/30, n/60	1,000 yds. Wilton @ $2.22½ per yd.	$2,225 00	
					1,000 yds. Oilcloth @ .16½ per yd.	165 00	
					1,000 yds. Linoleum @ .47½ per yd.	475 00	2,865 00
	27	5	King & Company, City	Check $1,000,	2,000 yds. Linoleum @ $ .48 per yd.	$960 00	
				30 day note	1,000 yds. Brussels @ .92 per yd.	920 00	
				for bal.	2,000 yds. Oilcloth @ .19 per yd.	380 00	2,260 00
							$19,602 40
			Summary:—				
		6	Merchandise Purchases		$19,602.40		
		√	To General (Posted)		19,602.40		

SALES BOOK

Date		L.F.	Name and Address	Terms	Explanation		Extensions		Total	
19—										
Jan.	5	√	Cash Sales	Cash	26 yds. Moquette	@ $1.87 per yd.	$48	62		
					12 yds. Linoleum	@ .60 per yd.	7	20		
					16 yds. Oilcloth	@ .20¼ per yd.	3	24	$59	06
	6	2	Girard & Co., Buffalo,	2/10, n/30	150 yds. Ingrain	@ $ .69½ per yd.	$104	25		
			N. Y.		300 yds. Oilcloth	@ .22⅛ per yd.	66	38	170	63
	7	2	B. Eckert & Son, City	Check $200,	200 yds. Brussels	@ $1.22 per yd.	$244	00		
				bal. in 10	500 yds. Oilcloth	@ .22⅛ per yd.	110	63		
				days	300 yds. Linoleum	@ .56½ per yd.	169	50	524	13
	7	√	Cash Sales	Cash	56 yds. Linoleum	@ $ .64 per yd.	$35	84		
					39 yds. Oilcloth	@ .25 per yd.	9	75	45	59
	10	2	East. Rug & Carpet Co.	On acct.	1,000 yds. Oilcloth	@ $1.54 per yd.	$154	00		
					1,000 yds. Linoleum	@ .44 per yd.	440	00	594	00
	11	√	Cash Sales	Cash	26 yds. Ingrain	@ $ .80 per yd.	$20	80		
					40 yds. Moquette	@ 1.75 per yd.	70	00		
					18 yds. Brussels	@ 1.40 per yd.	25	20		
					48 yds. Linoleums	@ .54 per yd.	25	92	141	92
	12	3	M. Phillips, Buffalo, N.Y.	2/10	350 yds. Wilton	@ $2.85 per yd.	$997	50		
					250 yds. Brussels	@ 1.05 per yd.	262	50		
					1,000 yds. Oilcloth	@ .19⅛ per yd.	191	25	1,451	25
	13	√	Cash Sales	Cash	22 yds. Brussels	@ $1.40 per yd.	$ 30	80		
					52 yds. Linoleum	@ .54 per yd.	28	08	58	88
	14	3	William Johnson & Bro.,	Cash $500;	1,000 yds. Ingrain	@ $ .64¾ per yd.	$647	50		
			Troy, N. Y.	15-day note	500 yds. Wilton	@ 2.85 per yd.	1,425	00		
				$1,000; bal.	600 yds. Moquette	@ 1.50 per yd.	900	00	2,972	50
				in 20 days					$6,017	96
			Carried Forward							

SALES BOOK (Continued)

Date		L.F.	Name and Address	Terms	Explanation		Extensions		Total	
19— Jan.	16	√	Brought Forward						$6,017	96
	16	√	Cash Sales	Cash	89 yds. Oilcloth	@ $ .21 per yd.	$ 18	69	18	69
	18	2	B. Eckert & Son, City	2/10, n/30	250 yds. Wilton	@ $2.85 per yd.	$712	50		
					250 yds. Brussels	@ 1.05 per yd.	262	50	975	00
	18	3	Foster Bros., City	$300 cash;	350 yds. Ingrain	@ $ .65½ per yd.	$229	25		
				bal. in 30	300 yds. Moquette	@ 1.50 per yd.	450	00		
				days	500 yds. Oilcloth	@ .19⅛ per yd.	95	63	774	88
	19	√	Cash Sales	Cash	112 yds. Ingrain	@ $ .80 per yd.	$ 89	60		
					38 yds. Brussels	@ 1.45 per yd.	55	10		
					62 yds. Oilcloth	@ .21 per yd.	13	02	157	72
	21	√	Cash Sales	Cash	63 yds. Ingrain	@ $ .80 per yd.	$ 50	40		
					42 yds. Brussels	@ 1.40 per yd.	58	80		
					86 yds. Oilcloth	@ .21 per yd.	18	06		
					52 yds. Linoleum	@ .64 per yd.	33	28	160	54
	23	3	R. Roberts, City	Cash $500;	500 yds. Wilton	@ $2.80 per yd.	$1,400	00		
				bal. in 10 dys.	500 yds. Linoleum	@ .60 per yd.	300	00	1,700	00
	25	3	James Farrott & Co.,	2/10, n/30	500 yds. Wilton	@ $2.80 per yd.	$1,400	00		
			Troy, N. Y.		500 yds. Linoleum	@ .60 per yd.	300	00		
					500 yds. Oilcloth	@ .19 per yd.	95	00	1,795	00
			Carried Forward						$11,599	79

SALES BOOK (Continued)

Date		L.F.	Name and Address	Terms	Explanation		Extensions		Total	
19—										
Jan.	25	√	Brought Forward						$11,599	79
	26	√	Cash Sales	Cash	125 yds. Oilcloth	@ $ .21 per yd.	$ 26	25		
					42 yds. Brussels	@ 1.45 per yd.	60	90	87	15
	28	3	Wm. Johnson & Bro.,	2/10, n/30	300 yds. Wilton	@ $2.88 per yd.	$864	00		
			Troy, N. Y.		400 yds. Ingrain	@ .66 per yd.	264	00		
					400 yds. Linoleum	@ .54 per yd.	216	00	1,344	00
	28	4	Maxwell & Co., Albany,	$500 cash;	1,000 yds. Ingrain	@ $ .66 per yd.	$660	00		
			N. Y.	$700 note;	300 yds. Moquette	@ 1.50 per yd.	450	00		
				bal. 10 days	300 yds. Brussels	@ 1.05 per yd.	315	00		
					500 yds. Linoleum	@ .55 per yd.	275	00		
					500 yds. Oilcloth	@ .19¼ per yd.	96	25	1,796	25
	30	4	Brolt & Co., Albany, N.Y.	$300 cash;	300 yds. Brussels	@ $1.15 per yd.	$345	00		
				30-day, 6%	500 yds. Linoleum	@ .60 per yd.	300	00		
				note for bal.	500 yds. Oilcloth	@ .19 per yd.	95	00	740	00
	30	√	Cash Sales	Cash	25 yds. Brussels	@ $1.45 per yd.	$ 36	25	36	25
	31	4	F. Peters & Bro., City	2/10, n/30	300 yds. Oilcloth	@ $ .22½ per yd.	$ 67	50		
					200 yds. Linoleum	@ .65 per yd.	130	00	197	50
	31	√	Cash Sales	Cash	92 yds. Linoleum	@ $ .63 per yd.	$ 57	96		
					57 yds. Moquette	@ 1.85 per yd.	105	45		
					86 yds. Oilcloth	@ .21½ per yd.	18	49	181	90
			Summary:—						$15,982	84
		√	General (Posted)		$15,982.84					
		6	To Merchandise	Sales		$15,982.84				

CASH RECEIVED

Date		Name of Account to be Credited	Explanation	L.F.	Net Cash	Discount	Miscellaneous
19—							
Jan.	2	A. Roberts, Capital Account	His investment in the business.	4	$10,000 00		$10,000 00
	5	Cash Sales.	See Sales Book for items.	√	59 06		59 06
	7	B. Eckert & Son, City.	Part payment bill of today.	2	200 00		200 00
	7	Cash Sales.	See Sales Book for items.	√	45 59		45 59
	10	Girard & Co.	For bill of Jan. 6th.	2	167 22	3 41	170 63
	11	Eastern Rug & Carpet Co.	For bill of Jan. 10th.	2	594 00		594 00
	11	Cash Sales.	See Sales Book for items.	√	141 92		141 92
	13	B. Eckert & Son, City.	Balance due us.	2	324 13		324 13
	13	Cash Sales.	See Sales Book for items.	√	58 88		58 88
	14	William Johnson & Bro.	Part payment of bill of today.	3	500 00		500 00
	16	Notes Receivable Discounted.	Discounted Johnson & Bro's note.	5	997 83	2 17	1,000 00
	16	Cash Sales.	See Sales Book for items.	√	18 69		18 69
	18	Foster Bros., City.	On account of invoice of today.	3	300 00		300 00
	19	Cash Sales.	See Sales Book for items.	√	157 72		157 72
	20	Notes Payable.	Discounted my 60 days' note, less 6%.	4	1,980 00	20 00	2,000 00
	21	Cash Sales.	See Sales Book for items.	√	160 54		160 54
	23	R. Roberts.	On account of bill of 1/23/ .	3	500 00		500 00
	26	Cash Sales.	See Sales Book for items.	√	87 15		87 15
	28	Maxwell & Co.	Part payment bill of 1/28/	4	500 00		500 00
	30	Brolt & Co.	" " " " 1/30/	4	300 00		300 00
	30	Cash sales.	See Sales Book for items.	√	36 25		36 25
	31	James Farrott & Co.	Bill of 1/25.	3	1,759 10	35 90	1,795 00
	31	Cash Sales	See Sales Book for items.	√	181 90		181 90
		Summary of Cash Receipts:			$19,069 98	61 48	$19,131 46
	1	Cash $19,069.98					
	6	Cash Discount 39.31					
	8	Discount Lost 22.17					
	√	To Sundries (Posted)	$19,131.46				

CASH PAID

Date		Name of Account to be Charged	Explanation	L.F.	Net Cash	Discount	Miscellaneous
19—							
Jan.	2	Rent.	For month of January, 19—.	8	$150.00		$150.00
	4	King & Company.	On acct. of invoice of 1/3/19—.	5	2,000.00		2,000.00
	4	Insurance.	Insured Store and contents for $15,000.00 @ $1\frac{1}{16}$%.	8	159.38		159.38
	5	Furniture and Fixtures.	J. Walters for shelving and furniture and fixtures.	1	250.00		250.00
	7	Salaries.	For week ending today.	7	45.00		45.00
	9	Auction House.	See Purchase Book for items.	√	540.00		540.00
	9	A. Roberts' Drawing Acct.	Withdrew for private use.	1	50.00		50.00
	13	Advertising.	Paid today.	7	28.50		28.50
	13	General Expenses.	For sundry petty expenses.	7	12.39		12.39
	14	Salaries.	For week ending today.	7	45.00		45.00
	14	Freight Outward.	On sales.	6	22.16		22.16
	16	Hooker & Sons.	Invoice of 1/12.	5	3,206.25	168.75	3,375.00
	20	Jacobs & Son.	Special arrangement, 5% on bill of 19th inst.	5	2,721.75	143.25	2,865.00
	20	Printing.	Sundries.	7	21.30		21.30
	20	Advertising.	Paid today.	7	28.50		28.50
	20	Expenses.	Sundry petty expenses.	7	11.85		11.85
	21	A. Roberts' Drawing Acct.	For private use.	1	100.00		100.00
	21	Salaries.	Week ending today.	7	55.00		55.00
	21	Expenses.	For sundry postage.	7	2.85		2.85
	21	Expenses.	Sundry petty expenses.	7	1.87		1.87
	23	Commission.	To A. Simpson on sale to A. Roberts.	7	85.00		85.00
	25	Freight Outward.	On J. Farrott & Co. sale.	6	18.65		18.65
	25	Notes Payable.	Prepay my note to King & Co.—no interest.	√	5,000.00		5,000.00
	26	Carried Forward.			$14,555.45	$312.00	$14,867.45

CASH PAID (Continued)

Date		Name of Account to be Charged	Explanation		L.F.	Net Cash		Discount		Miscellaneous	
19—											
Jan.	26	Brought forward.	From previous page.		√	$14,555	45	$312	00	$14,867	45
	25	A. Roberts' Drawing Acct.	For private use.		1	200	00			200	00
	25	Advertising.	Paid today.		7	112	00			112	00
	25	Expenses.	For cleaning windows.		7	2	30			2	30
	26	Commission.	To Simpson on Farrott & Co. sale.		7	89	75			89	75
	26	Expenses.	Sundry petty expenses.		7	1	65			1	65
	27	King & Co.	Part payment of bill of 1/27.		5	1,000	00			1,000	00
	28	Salaries.	Week ending today.		7	60	00			60	00
	28	Expenses.	Sundry office expenses.		7	2	96			2	96
	28	Commission.	To Smithson on Johnson & Bro. sale.		7	67	20			67	20
	31	Balance.	At end of month.		√	2,978	67				
						$19,069	98	$312	00	$16,403	31
		Summary:—									
	√	Sundries (Posted)	$16,403.31								
	1	To Cash.		$16,091.31							
	6	Cash Discount.		312.00							

There are two main points that we must constantly bear in mind. (1) Determine in which book the transaction is to be recorded and (2) remember the rules in regard to correct journalizing, that *the account that receives the benefit of the exchange is to be debited, while the account that yields the benefit is to be credited.*

3. *Analysis of transactions in January.*—(For entries in the books refer to pages 79 to 87.) The transactions under date of January 2 are recorded in the journal and cash book. The cash invested is entered in the cash book. Since cash is received, the amount thereof, $10,000.00, is entered on the debit side of the cash book in the miscellaneous and net cash columns. Since the proprietor's account represents the source of the benefit, it will be credited with the amount of the investment. The cash received will be debited to the cash account in the ledger at the end of the month. The record of the lease is shown in memorandum form in the journal. In this case there was no exchange and hence there is neither debit nor credit, but the payment of a month's rent is entered on the credit side of the cash book. The opening of a bank account is not recorded in any of the financial books except in the stub of the check book, nor is it necessary to keep a separate record for deposits in and withdrawals from the bank. The cash book shows all cash receipts and all cash payments whether such receipts are in our own possession or in that of the bank, or whether paid in cash or by check. The bal-

ance of cash should always agree with the total of the cash in the bank and the amount in hand. The engagement of employes, not being an exchange, need not be recorded as a transaction, but may be entered as a memorandum; here, it is left out entirely since it is not necessary.

The exchange under date of January 3 is recorded in the purchase book, giving all the necessary data in regard to that particular purchase. As no other terms are given, it is marked simply on account. In this instance King & Company will be credited from the purchase book since they yielded the benefit, and merchandise purchases account will be charged in the ledger when the purchase book is closed at the end of the month. The settlement with King & Company under date of the 4th is recorded as follows: The cash payment on account of the bill of the 3rd, $2,-000.00, is entered on the credit side of the cash book, showing a credit to cash and a debit to the individual, personal account of "King & Company" in the miscellaneous column. The reason King & Company is debited is due to the fact that they received the benefit and the indebtedness is decreased to that extent. Cash is credited in total from the cash book at the end of the month when the cash book is closed. The transaction relating to the note is recorded in the journal, where King & Company as receivers of the benefit of the exchange are debited, and the account "notes payable," as yielding the benefit, is credited. The account is termed "notes payable" because it is our own note which becomes a liability until it is paid. The promise of the 4 per cent interest is not shown in the entry proper, except in the explanatory text. Interest is not an item that becomes due suddenly on a given date, but accrues daily. At the time of issue there are no accretions and no journal entry is necessary.

The payment of insurance premium under the same date is shown on the credit side of the cash book. The "insurance" account is debited for the premium paid, while cash, having yielded the benefit, is credited.

It is sometimes advisable, where a complete record is required, to make a memorandum entry in the journal, showing the amount of insurance, how distributed, important clauses, etc. This is often necessary, so that we may learn when it is to be renewed, and know at any time how much has actually expired and how much is unexpired.

On the fifth, cash was paid to J. Walters for furniture and fixtures and therefore the cash book shows, on the credit side, a debit to "furniture and fixtures" for $250.00 and a credit to "cash." Furniture and fixtures account is debited because it receives the benefit of the exchange. The main point to remember is that care must be taken to see that the *proper* account is debited or credited at all times, as it will have a direct bearing on the final result.

The cash sales are recorded in the sales book without any explanatory notes. They are also recorded in the cash book in order to show the cash received and, therefore, cash is debited. It suffices for the present to state that the entry in the sales book indicates credit to the "merchandise sales" account, while the entry showing cash sales in the cash book indicates the debit to "cash." Thus we have a complete record of this transaction. This double record of cash sales is made, instead of a single record in the cash book, to enable the proprietor to determine his total sales for the month directly from the sales book; he could not get this information at once if the cash book entry alone were made. Where cash sales are recorded twice, it is necessary to check the corresponding credit in the cash book and the charge in the sales book so that they will not be posted twice.

The sale of goods on the 6th to Girard and Company we record in the sales book, with explanatory notes in regard to the sale. It is not necessary to do this in the case of a purchase, as we have the invoice to which we can refer. It is sometimes done, however, so that the information can be obtained without referring to the bill itself. In the case of a sale, unless we have a copy of the bill forwarded to the buyer, we have no record of quantities sold, or prices, etc. The entry in this case means a debit to "Girard and Company" and a credit to "merchandise sales," as Girard and Company received the benefit of the exchange and merchandise sales yielded the benefit. Just as in the case of purchases, the sales are not credited individually to the merchandise sales account but are credited in total at the end of the month. However, the charges to the customers are posted individually so that we can determine how much each customer owes us. The terms on which the sale was made are 2/10 or n/30, which means 2 per cent discount from the face of the bill if paid within ten days; net if paid in thirty days. At present, we merely consider that Girard and Company owe us the face of the bill, as it is within their discretion whether to pay in ten or in thirty days.

Under date of the 7th, we record the sale to Eckert and Son in the sales book, with complete explanation. The account of Eckert and Son is debited for the face of the bill and the sales account is credited. This entry is similar to that explained above. The cash payment that we receive from them is shown in the cash book, where cash is debited and Eckert and Son credited, the balance being entirely ignored. As Eckert and Son have been debited, thru the sales book, for the face of the bill, and credited, thru the cash book, for the cash they have paid, the balance that they owe us is already noted and shown.

The cash sales are recorded as explained before under date of the 5th. The salaries paid are entered in the cash book under the heading "salaries," and comprise the total mentioned in the data of January 2. The deposit is ignored for reasons before mentioned.

The purchase of the 9th is recorded in the purchase book and also in the cash book. The entry in the former indicates a debit to merchandise purchases, while the entry in the latter indicates a credit to cash. This purchase, differing from former purchases, is recorded in detail; e.g., the quantities and prices are given. The reason for this complete entry is that in auction purchases we do not always receive invoices. Cash purchases are recorded twice, just as are cash sales, for reasons which have been explained.

It would be possible to enter cash sales and cash purchases directly in the cash book, crediting and debiting the merchandise account, and eliminating them from the purchase and sales book. The other practice is followed, however, in order to record in their respective books, the total sales and purchases for the particular period in question.

The amount withdrawn by the proprietor on the 9th, for private use, is shown on the cash-paid side, being a debit to an account headed, "A. Roberts, Drawing," and a credit to cash. The account A. Roberts, Drawing, is charged instead of "A. Roberts Capital" so that we may be able to keep the investment separate from the withdrawals. The credit to cash is made at the end of the month.

On the 10th, Girard and Company remit for their bill by check. According to the terms of the sale they are entitled, if they pay within ten days, to a 2 per cent discount from the face of the bill. Their bill amounted to $170.63. They are, therefore, entitled to a discount amounting to $3.41, which is entered in the discount column. The net cash received is entered in the net cash column. In the miscellaneous column the total $170.63 is entered. By this record the cash is debited for the amount received, $167.22, and the discount for $3.41, while the customer is credited for the full amount of the indebtedness liquidated.

The sale to the Eastern Rug and Carpet Company is recorded in the sales book, as explained before.

The check received from the Eastern Rug Company, as well as the cash sales under the 11th, are recorded, as explained in similar transactions. No discount is allowed the Eastern Rug Company, so the full amount is received and entered.

On the 12th, we bought goods from Hooker and Sons and make an entry in the purchase book as before, as we do not know at the time when a settlement will be made. The sale under this date to M. Phillips is recorded in the usual manner.

Eckert and Son's payment as well as the cash sales, under date of the 13th are entered in the cash book on the debit side, as in similar cases before considered.

The advertising expense of the same day is entered in the cash book under the heading "advertising," so that we have a debit to this account and a credit to cash. The account "advertising" is charged and not general expenses, as we desire to know how much was expended on advertising, which we could not determine if all expenses were grouped under general expenses. The petty expenses are entered in the miscellaneous column provided for miscellaneous expenditures. We have then a debit to the expense account and a credit to cash.

The sale to Johnson and Bros., on the 14th, is first recorded in the sales book, as in previous cases. The cash remitted is shown in the cash book, as in former cases, while the note is entered in the journal, "notes receivable" account being debited and "Johnson and Bros." account credited. The balance is ignored for reasons mentioned above. A complete explanation should accompany this entry. We debit notes receivable because it is a note that is received and which becomes an asset of the proprietor's.

The salaries paid are recorded as previously instructed. The amount paid for freight is shown under the heading freight outward, i. e., it is debited to this account and credited to cash. A technical distinction is made regarding freight inward, i.e., freight on incoming goods, and freight outward, i.e., freight on outgoing goods, as the former represents really part of the goods purchased, while the latter is part of the selling expense.

The transactions under the 16th require a little attention. The average business man, who accepts notes in settlement of accounts due to him, discounts them in his bank. For this the bank usually charges him a discount of 6 per cent per annum for the unexpired time that the note has to run. Roberts desired to have Johnson and Bros.' note discounted. Since the note is payable to him, he must, in order to negotiate it, transfer the right and title to the note to the indorsee. By doing this he guarantees that the note is genuine, not a forged one, and that, in case of the default by the maker, he, the indorser, will make it good. In discounting this note, Mr. Roberts assumes a contingent liability, because as indorser he may be called upon to pay it if the maker does not pay it at maturity. This possibility of being obliged to pay it, should payment be refused by the maker, must be recorded. Therefore, we do not credt the notes receivable account, the account which yields the benefit of the exchange, but a similar account, viz., notes receivable discounted. By this method we show the actual facts of the exchange—the contingent or doubtful liability. When we receive notice that the note is paid, the contingent liability being wiped out, we make a journal entry, debiting notes receivable discounted, and crediting notes receivable. The discount paid to the bank is being taken care of thru the discount column in the cash book.

In paying Hooker and Sons' invoice of the 12th, deduct the discount to which we are entitled, as per terms of purchase, entering the net cash paid, \$3,206.25, in the net cash column and the discount in the discount column, and debiting the seller in the miscellaneous column for the face of the bill.

The cash sales of the 16th are recorded as previously instructed.

The transactions under the 18th and the 19th are treated as similar ones in previous cases.

Under the 20th, Roberts discounted his own note at the bank, that is, he borrowed from the bank $2,000.00 on a sixty day note, for which he paid the bank a discount. Record of this is made in the cash book by a debit to cash for $1,980.00, the net proceeds of the note, a debit to a discount in the discount column for $20.00, the amount of discount, and a credit to notes payable for the face of the note. We should not confuse discounting the proprietor's note with discounting notes of customers. When he gives his own note, there is not a contingent liability, but a direct liability to meet the note when it becomes due. We credit notes payable for $2,000.00 and not $1,980.00, as the indebtedness to the bank is $2,000.00, and we must record the full amount on our books.

In the purchase of the 19th from Jacobs and Sons the terms were 3 per cent discount if paid in thirty days or net if paid in sixty days. Since Jacobs and Sons are willing to give 5 per cent discount if immediate payment is made on the invoice, we pay the amount of the bill less the discount and record the transaction in the cash book as before.

The printing and the advertising appear under their own heading in the cash book as similar items were treated in former cases.

The transactions on the 21st are recorded as previously instructed.

In the transactions of the 23rd Roberts pays to Simpson 5 per cent commission on the sale. Therefore, in addition to recording the sale thru the proper channels, we make an entry in the cash book under the heading "commission" for the amount paid. By this entry, cash yielding the benefit of the exchange is credited, while the "commission" account receiving the benefit is debited. The "commission" account is charged in order that we may ascertain the exact amount of this expense.

On the 23rd, we are faced by an exceptional transaction. The $5,000.00 paid to King and Company must be recorded on the credit side of the cash book, as it is a cash payment. An entry is also made in the journal giving the full particulars. We can satisfactorily check the charge on the credit side of the cash book, and fully record it in the journal by charging notes payable, the full amount—thus canceling that indebtedness—and crediting cash $5,000.00, the amount actually paid, and notes payable for the balance, thus creating a new liability for that amount. Inasmuch as they waive their right to interest, no interest need be paid. By checking the charge in the cash book for $5,000.00 and checking the credit to cash in the journal, we still maintain equilibrium. The cash entry in the journal is made so that the transaction can be fully recorded and explained there.

Roberts' agreement with Maxwell and Company on the 28th is also difficult to handle. Notes receivable should be charged for the face of the note received, $700.00. The next point to consider is the interest and the discount. Maxwell and Company are entitled to the actual value of the note at the time of its transfer. The interest to date of maturity.

is $5.83. The total value at maturity, principal plus interest, is $705.83. But it still has 36 days to run. So we charge them for the discount of $4.23. Thus the real value of that note on this day is only $701.60. The entry therefore, is debit notes receivable $700.00, interest $5.83 and credit discount $4.23 and Maxwell and Company for $701.60.

On the 29th the bank notified Roberts that Johnson and Bros. have paid their note. At the present time that note is on his books as a contingent liability, but inasmuch as the contingent liability ceases when the note is paid, we must write it off. So we make an entry charging "notes receivable, discounted," and crediting "notes receivable" for the amount of the note.

The other transactions have already been discussed in detail before, so it is not necessary to mention them again.

REVIEW

Explain the various entries made in opening the books of A. Roberts.

What special rulings are made in the sales book?

How were the transactions connected with the note receivable discounted handled?

CHAPTER VIII

APPLYING ACCCOUNTING PRINCIPLES—THE LEDGER RECORDS

1. *Closing the books.*—We have now completed the transactions for the month of January, and desire to know the condition of the business at this time, and the profit realized on the January transactions. There are four books to be considered in arriving at the figures for the month: sales book, purchase book, cash book and journal. In the journal each transaction is separate in itself and consequently will be considered separately when the journal is considered a little later. In the sales book, however, the total column is to be footed and the total entered on the line following the item of the transactions. The same process is to be followed in closing the purchase book.

In regard to the cash book, the three columns on both sides are to be footed and care should be exercised in seeing that the total of the discount and net cash columns equals the total of the miscellaneous column. However, as the cash balance is entered on the credit side, that balance must be deducted from the total of the net cash column to arrive at the net cash paid out for the month.

2. *Posting the entries.*—The assumption is now made that all the records in the books of original en-

try are complete and ready to post to the ledger. This ledger is a book of final record inasmuch as it contains only items that have been transferred from the other books known as the books of original entry.

The reader must appreciate that all the routine work gone thru with in this set, while practical and in accordance with business customs, is not as minute as in actual procedure. There we might post daily, but here we are satisfied to post monthly.

3. *Posting from the journal.*—The first book to be considered is the journal. Under January 2 we find in this journal a charge to King and Company and a credit to notes payable to the amount of $8,562.40. We turn to our ledger and open up an account for King and Company in the section provided for liabilities. To this account we enter on the debit or left-hand side the date, the memorandum data, in this case "Notes Payable," the folio page in the book from which it comes, as well as the amount. Similarly we open an account for notes payable in the liability section and make an entry on the right hand or credit side of the account. In the folio column in the journal we note the page in the ledger to which the amount is posted. Proceeding thus, we post all the accounts from this journal.

The space required for each ledger account must be estimated in advance. It is always advisable to allow more space than is actually needed in order to provide for future growth.

4. *Posting sales and purchases.*—In posting our purchase book we make one charge to the "merchandise purchase" account for the full amount of the purchases for the month, namely, $19,602.40, and credit to the individual creditors, from whom we bought the goods, the amount of their respective bills. In the ledger folio column in the purchase book is entered the page number of the ledger to which each item is posted. The reader can easily see that the total charge to the merchandise purchase account equals the total of the separate credits to the individual creditors, and consequently the equilibrium is maintained.

Practically the same procedure is followed in closing the sales book. The total column is footed and the amount of $15,982.84 is entered to the credit of the merchandise sales account with the explanation in the memorandum column, "To Sales." The individual debtors are then charged for their respective amounts and the total of these individual charges will equal the total of the credit to the merchandise sales account.

In posting the debit side of the cash book we must notice that the accounts appearing on that side yield a benefit and are credited; the accounts on the cash credit side receive a benefit and are to be debited. The equilibrium is maintained by the fact that on the debit side of the cash book cash is really debited in all these cases and the sources from which the cash is received are credited.

All accounts, cash sales excepted, that appear on the cash debit side, are posted, under appropriate headings, to the ledger as previously instructed. All accounts that appear on the cash credit side are also posted under their appropriate headings to the debit of their respective accounts in the ledger. Cash sales are not posted individually because they are included in the total credit to the merchandise sales account from the sales book.

5. *Closing the cash book.*—The next step is to close and post the cash book. This is done by footing the discount, miscellaneous and net cash columns of both cash receipts and expenditures. We shall now discuss the cash receipts. In analyzing the discount column we find that of the $61.48 discount, $39.31 represents cash discount and $22.17 represents discount lost. We keep these items separate in order to determine how much cash was allowed customers for prepayment of bills and how much discount was lost in discounting notes. We then charge cash for the total amount received, $19,069.98, debit cash discount $39.31, debit discount lost for $22.17, and credit sundries which have already been posted to the credit of their accounts from the miscellaneous column for the full amount. The total of the miscellaneous credits that have been posted from the miscellaneous column will equal the total of the charges that appear on the debit side of the cash book.

The credit side of the cash book is treated in like manner. The discount, miscellaneous and net cash columns are footed and the total of the discount and net cash columns should equal the total of the miscellaneous column, exclusive of the cash balance from the net cash column. We then summarize the cash payments by charging to sundries \$16,403.31, crediting cash with \$16,091.31, as that was the actual amount of cash paid out, and crediting cash discount with \$312.00. The *charge* in this summary is not posted in total inasmuch as the separate charges for the month are posted individually from the miscellaneous column. Cash and cash discounts are then posted to the credit of their respective accounts in the ledger.

These postings will appear as illustrated in the ledger:

CASH

19 Jan.	31	Sundries	C. 1	$19,069	98	19 Jan.	31	Sundries	C. 4	$16,091	31

NOTES RECEIVABLE

19 Jan.	14	Wm. Johnson & Co.	J. 1	$1,000	00	19 Jan.	30	Notes Received Discount	J. 1	$1,000	00
	28	Maxwell & Co.	J. 1	700	00						
	30	Brelt & Co.	J. 2	440	00						

FURNITURE & FIXTURES

19 Jan.	5	Cash	C. 2	$250	00						

A. ROBERTS DRAWING ACC'T

19 Jan.	9	Cash	C. 2	$ 50	00	19 Jan.	31	Profit and Loss	J. 3	$2,337	04
	20	"	C. 2	100	00						
	25	"	C. 2	200	00						
	31	A. Roberts Capital Acct.	J. 3	1,987	04						
				$2,337	04					$2,337	04

MERCHANDISE INVENTORY

19 Jan.	31	Mdse. Purchases	J. 2	$6,602	19						

UNEXPIRED INSURANCE

19 Jan.	31	Insurance	J. 2	$146	10							

ACCRUED INT. ON NOTES RECEIVABLE

19 Jan.	31	Interest	J. 2	$2	70							

GIRARD & COMPANY

19 Jan.	6	Sales; 2/10, n/30	S. 1	$170	63	19 Jan.	10	Cash	C. 1	$170	63

B. ECKERT & SON

19 Jan.	7	Sales; $200 cash; n/30	S. 1	$524	13	19 Jan.	7		C. 1	$200	00
	18	" 2/10, n/30	S. 1	975	00		13	Cash	C. 1	324	13

EASTERN RUG & CARPET CO.

19 Jan.	10	Sales, on Account	S. 1	$594	00	19 Jan.	11	Cash	C. 2	$594	00

M. PHILLIPS

19 Jan.	12	Sales; 2/10	S.1	$1,451	25						

WM. JOHNSON & BRO.

19 Jan.	14	Sales; cash; $500–15 day note for $1,000–bal. 20 days	S.1	$2,972	50	19 Jan.	14	Cash	C.1	$500	00
							"	Notes Receivable	J.1	1,000	00
	28	Sales 2/10, n/30	S.2	1,344	00						

FOSTER BROS.

19 Jan.	18	Sales; $300 cash; balance 30 days	S.1	$774	88	19 Jan.	18	Cash	C.1	$300	00

R. ROBERTS

19 Jan.	23	Sales; $500 cash; balance 10 days	S.2	$1,700	00	19 Jan.	23	Cash	C.1	$500	00

JAMES FARROTT & CO.

19 Jan.	25	Sales; 2/10, n/30	S.2	$1,795	00	19 Jan.	31	Cash	C.1	$1 795	00

MAXWELL & CO.

19						19					
Jan.	28	Sales, $500 cash; $700 note balance 10 days	S.2	$1,796	25	Jan.	28	Notes Rec. and Int.	J.1	$701	60
							28	Cash	C.1	500	00

BROLT & CO.

19						19					
Jan.	30	Sales: $300 cash: 30 day 6% note for balance	S.2	$740	00	Jan.	30	Notes Receivable	J.2	$440	00
							30	Cash	C.1	300	00
				$740	00					$740	00

F. PETERS & CO.

19											
Jan.	31	Sales; 2/10, n/30	S.3	197	50						

A. ROBERTS, CAPITAL

						19					
						Jan.	2	Investment Cash	C.1	$10,000	00
							31	A. Roberts Drawing Acct.	J.3	1,987	04

NOTES PAYABLE

19						19					
Jan.	25	Cash and Notes Pay	J.1	$8,562	40	Jan.	4	King & Co.	J.1	$8,562	40
							20	King & Co.	C.1	3,562	40
							20	Cash	C.1	2,000	00
							27	King & Co.	J.1	1,260	00

NOTES RECEIVABLE, DISCOUNTED

19						19					
Jan.	30	Notes Receivable	J. 1	$1,000	00	Jan.	16	Johnson & Bro. note	C. 1	$1,000	00

SALARIES ACCRUED

						19					
						Jan.	31	Salaries	J. 2	$20	00

P. JACOBS & SONS

19						19					
Jan.	20	Cash	C. 2	$2,865	00	Jan.	19	Purchases, 3/30, n/60	P. 1	$2,865	00

HOOKER & SONS

19						19					
Jan.	16	Cash	C. 2	$3,375	00	Jan.	12	Purchases, 5/10, 2/30	P. 1	$3,375	00

KING & CO.

19						19					
Jan.	3	Notes Payable	J. 1	$8,562	40	Jan.	30	Purchases on Account	P. 1	$10,562	40
	27	" "	J. 1	1,260	00		27	" Check $1,000,	P. 1	2,260	00
	4	Cash	C. 2	2,000	00			balance 30 days			
	27	" "	C. 2	1,000	00						
				$12,822	40					$12,822	40

MERCHANDISE SALES

19						19					
Jan.	31	Profit and Loss	J. 2	$15,982	84	Jan.	31	Sales	S. 3	$15,982	84

DISCOUNT GAINED

19						19					
Jan.	31	Profit and Loss	J. 2	$4	23	Jan.	28	Sundries	J. 1	$4	23

CASH DISCOUNT

19						19					
Jan.	31	Sundries	C. 1	$39	31	Jan.	31	Cash	C. 4	$312	00
	31	Profit and Loss	J. 2	272	69						
				$312	00					$312	00

MERCHANDISE PURCHASES

19						19					
Jan.	31	Purchases	P. 1	$19,602	40	Jan.	31	Inventory	J. 2	$6,602	19
							31	Profit and Loss	J. 2	13,000	21
				$19,602	40					$19,602	40

FREIGHT OUTWARD

19						19					
Jan.	14	Cash	C. 2	22	16	Jan.	31	Profit and Loss	J. 2	$40	81
	25	" J.Farrott & Co.	C. 2	18	65						
				40	81					$40	81

COMMISSIONS

19						19					
Jan.	23	Cash	C. 2	$85	00	Jan.	81	Profit and Loss	J. 2	$241	95
	26	"	C. 2	89	75						
	28	"	C. 4	67	20						
				241	95					241	95

ADVERTISING

19						19					
Jan.	13	Cash	C. 2	$28	50	Jan.	31	Profit and Loss	J. 2	$169	00
	20	"	C 2	28	50						
	25	"	C. 2	112	00						
				160	00					169	00

GENERAL EXPENSES

19						19					
Jan.	13	Cash	C. 2	$12	39	Jan.	31	Profit and Loss	J. 2	$35	87
	20	"	C. 2	11	85						
	21	"	C. 2	2	85						
	21	"	C. 2	1	87						
	25	"	C. 2	2	30						
	26	"	C. 2	1	65						
	28	"	C. 4	2	96						
				35	87					35	87

PRINTING

19						19					
Jan.	20	Cash	C. 2	$21	30	Jan.	31	Profit and Loss	J. 2	$21	30

SALARIES

19						19					
Jan.	7	Cash	C. 2	$15	00	Jan.	31	Profit and Loss	J. 2	$225	00
	11	"	C. 2	15	00						
	21	"	C. 2	55	00						
	28	"	C. 4	60	00						
	31	Accrued	J. 2	20	00						
				225	00					225	00

INSURANCE

19						19					
Jan.	1	Cash	C. 2	$159	38	Jan.	31	Unexpired Insurance	J. 2	$146	10
							31	Profit and Loss	J. 2	13	28
				159	38					159	38

RENT

19						19					
Jan.	2	Cash	C. 2	$150	00	Jan.	31	Profit and Loss	J. 2	$150	00

INTEREST

19						19					
Jan.	28	Maxwell & Co.	J. 1	$5	83	Jan.	31	Accrued	J. 2	$2	70
							31	Profit and Loss	J. 2	3	13
				5	83					5	83

DISCOUNT LOST

19						19					
Jan.	31	Cash	C. 1	$22	17	Jan.	31	Profit and Loss	J. 2	$22	17

PROFIT AND LOSS

19						19					
Jan.	31	Mdse. Purchases	J. 2	$13,000	21	Jan.	31	Mdse. Sales	J. 2	15,982	84
	31	Freight Outward	J. 2	40	81		31	Discount Gained	J. 2	4	23
	31	Commission	J. 2	241	95		31	Cash Discount	J. 2	272	69
	31	Advertising	J. 2	169	00						
	31	General Expenses	J. 2	35	87						
	31	Printing	J. 2	21	30						
	31	Salaries	J. 2	225	00						
	31	Insurance	J. 2	13	28						
	31	Rent	J. 2	150	00						
	31	Interest	J. 2	3	13						
	31	Discount Lost	J. 2	22	17						
	31	A. Roberts Drawing Acct.	J. 3	2,337	04						
				16,259	76					16,259	76

REVIEW

In practice, how often is the posting completed?
Explain how an account is posted from the purchase book.
How are sales items posted?
Describe the closing of the cash book.

CHAPTER IX

APPLYING ACCOUNTING PRINCIPLES—SUMMARIZING RESULTS

1. *Preparation of the trial balance.*—Now that all the accounts have been posted, it is evident that if we have made a debit for every credit, the sum of all the debits will equal the sum of all the credits. We can test the accuracy of our postings by drawing up what is known as a trial balance or summary of the debit and credit balances on the ledger. There may be errors which this will not reveal, but at present we are satisfied to know that this trial balance is prepared so that we may find out whether the debits and credits are in equilibrium. If not, we want to discover where the error occurs and rectify it.

Use ordinary journal ruling for this purpose and write down the names of all accounts that appear in the ledger that show either a debit or credit balance. The first column is used for debit balances and the second for credit balances. It is advisable to place the ledger folio in close proximity to each account so that we may easily refer to any of the accounts. Those that do not show any balances are of course omitted. We then foot the trial balance as shown on the following page:

A. ROBERTS

Trial Balance as of January 31, 19—

		Dr.		*Cr.*	
1	Cash	$2,978	67		
1	Notes Receivable	1,140	00		
1	Furniture and Fixtures	250	00		
1	A. Roberts' Drawing Account	350	00		
2	B. Eckert & Son	975	00		
3	M. Phillips	1,451	25		
3	Wm. Johnson & Bro.	2,816	50		
3	Foster Bros.	474	88		
3	R. Roberts	1,200	00		
4	Maxwell & Co.	594	65		
4	F. Peters & Bro.	197	50		
4	A. Roberts Capital			$10,000	00
4	Notes Payable			6,822	40
6	Merchandise Sales			15,982	84
6	Discount Gained			4	23
6	Cash Discount			272	69
6	Merchandise Purchases	19,602	40		
6	Freight Outward	40	81		
7	Commissions	241	95		
7	Advertising	169	00		
7	General Expenses	35	87		
7	Printing	21	30		
7	Salaries	205	00		
8	Insurance	159	38		
8	Rent	150	00		
8	Interest	5	83		
8	Discount Lost	22	17		
		$33,082	16	$33,082	16

2. *Determining the profit or loss for the month of January.*—The work for the month of January is now

completed and we desire to see whether we have made a profit during the month, or sustained a loss. In determining the result, we must first make sure that all entries affecting the month's transactions have been recorded, and then close out the economic accounts, which represent profit and loss, to the "profit and loss" account. Since income accounts show a credit balance, they are transferred by debiting these accounts and crediting profit and loss, and since expense accounts normally show debit balances, they are transferred by crediting the accounts and debiting profit and loss. If the credit side of the profit and loss account is in excess of the debit side, a profit has been made. If the debit side, however, is in excess of the credit side, a loss has been sustained.

3. *Accruals and the inventory.*—In looking over our records we find that there are a number of entries that must still be made before the books will accurately represent conditions at the end of the month. Referring to our insurance account, we find that we have paid insurance for the full year. Only one month's insurance has been consumed, and consequently it is necessary for us to separate the unexpired portion, $146.10, as one of the business assets. We also hold notes receivable which bear interest and on which interest has been earned up as of January 31, 19—, but not yet paid and not recorded. Consequently, we set up as an asset accrued interest on notes receivable which we are going to ultimately collect, and credit interest account which

represents an earning for the current month. In like manner, salaries for the last two days have become due but unpaid and we must set up a salary accrued account for this accrual, showing a liability for salaries due in this case for two days, amounting to $20.00. The final item to be picked up before the profit or loss for the month can be ascertained is the inventory of merchandise. As explained in Chapter IV, the merchandise on hand at the end of any period must be considered before determining the net profit, as this inventory is, in reality, a part of the merchandise purchases which have not as yet been sold. In this case it amounts to $6,602.19. We enter this item on the books charging merchandise inventory, which then becomes an asset for $6,602.19, and crediting that amount to the merchandise purchases account in order to determine the cost of the goods sold for the month of January.

4. *Net profit.*—We have now considered all of the items that will have any bearing on the condition of the business as of January 31, 19—, and we can proceed now to determine the actual profit or loss for the month. Enter thru the journal a charge to the respective income accounts—merchandise sales, discount gained, cash discount—and credit the full amount to an account called "profit and loss." We have thus transferred all accounts representing income to the credit of the profit and loss account. In like manner we debit "profit and loss" and credit different expense accounts, rent, insurance, and so forth. This entry

will close all the expense accounts and transfer the total expenses for the month of January to the debit of the profit and loss account.

The difference between the income on the credit side of the profit and loss account and the expenses on the debit side, will show the net profit that A. Roberts realized on the January transactions. This net profit realized is then transferred to A. Roberts' drawing account by entering thru the journal a charge to the profit and loss account for the excess profits, thus closing it out, and crediting the full amount to A. Roberts' drawing account. The difference between A. Roberts' drawing account represents the income for the business which A. Roberts has not drawn out and that balance should be transferred to A. Roberts' capital account in order to show the actual amount of capital in the business at the end of January. The total of A. Roberts' capital account then represents his net worth in the business at that time.

5. *Preparing the balance sheet.*—We have now determined the profit for the month of January and desire to prove the accuracy of our work, and know the condition of the business at this time. To accomplish these results, a balance sheet is prepared. The balance sheet shows what the business owns, what it owes, and the equity in the business of the proprietor. It is a record of assets on the left hand side and of liabilities and proprietorship on the right hand side.

If our work thus far has been correct and the equity of the proprietor, ascertained from his capital account after the profit and loss account has been closed, is true, that same equity should be the difference between the assets and liabilities.

Following you will find a balance sheet taken from the books of A. Roberts as of January 31, 19—:

A. ROBERTS

General Balance Sheet as of January 31, 19—

Assets			*Liabilities*		
Cash	$2,978	67	Notes Payable	$6,822	40
Notes Receivable	1,140	00	Salaries Accrued	20	00
Furniture and Fixtures	250	00	*Proprietorship*		
Merchandise Inventory	6,602	19	A. Roberts, Capital	11,987	04
Accrued Interest on Notes Receivable	2	70			
B. Eckert & Son	975	00			
M. Phillips	1,451	25			
Wm. Johnson & Bro.	2,816	50			
Foster Bros.	474	88			
R. Roberts	1,200	00			
Maxwell & Co.	594	65			
F. Peters & Bro.	197	50			
Unexpired Insurance	146	10			
Total Assets	$18,829	44	Total Liabilities and Proprietorship	$18,829	44

REVIEW

How is the trial balance prepared? What is its purpose?

Into what two classes do our business operations fall?

What items are shown in the profit and loss account?

From what accounts is the information for the balance sheet drawn?

CHAPTER X

COLUMNAR BOOKS

1. *The limitations of the regular journal as an analytical record.*—In the simple journal, such as was discussed in Chapter V, and used in A. Roberts' business, only two columns were employed—one for debits and one for credits. There are occasions, however, when a simple analysis of debits and credits is not sufficient. For example, a merchant might make many sales consisting of several kinds of merchandise such as groceries, grains, flour and salt; but the ordinary journal entries would not afford complete and comprehensive information. Such a transaction would be journalized as follows:

Customer's Account	$850.00	
Sales		$850.00
Explanation: Sales Invoice #25		

Does the entry disclose the important facts from an administrative point of view? Accounting, to be of real service, must at all times not only disclose the financial condition of an enterprise, but also furnish concurrently information on which to base administrative judgment. An analysis of sales activities should be furnished in order to make a comparison of one period's classified sales against those of another period.

2. *The monthly summary vs. a simple columnar book.*—At the end of each month the various journal entries in a simple two column journal made upon the pages consumed during the month may be analyzed, and the details of the credits and debits as shown be indicated in summary on the last page of the month's work. Postings could then be made from the total figures. This would save considerable time in posting and the results arrived at would be quite satisfactory under many circumstances. But instead of waiting until the end of the month to prepare a summary, it is easier to introduce a journal of three columns, employing one column for debits of some particular kind, such as purchases; another column to present the ordinary debits and a third column the regular credits. At the end of the month the bookkeeper foots the respective columns. The total of the column which has been employed for entering purchase debits during the month is posted in total at the end of the period. The details of the debits and credits are posted from day to day.

By this means the bookkeeper is enabled to secure a better analysis than if only simple debits and credits are entered in the journal and posted directly. The labor connected with the preparation of a summary at the end of the month has been eliminated and two objects have been accomplished, that of posting the detailed work from day to day and of securing, at the end of the month, a summary of a certain portion of the work recorded during the month. This practice, however, does not provide all the information that might be desired in respect to various journal entries. For instance, we spoke of a sale of groceries, grain, etc. The journal summary could not disclose this detailed information unless considerable time were spent by the bookkeeper at the end of the month in analyzing the many sales. This would take time that might be better employed at some other work and would necessitate delay in securing facts which should be known at once. As the proprietor must be guided from day to day in carrying on his respective activities, some other means of securing the information is necessary. This is supplied by the use of a many columned journal.

3. *Columnar journal.*—By the introduction of a columnar journal as a book of original entry in A. Roberts' office, several desirable results could have been achieved. A journal with columns headed: General Ledger, Accounts Receivable, Accounts Payable, etc., might have been introduced. When an entry is made in this journal, the debit portion of the entry is recorded in the column which corresponds to the ledger account in which the posting should be made. For instance—if a charge is made to a customer's account, the amount of the charge is entered on the debit side of the journal in the customer's or accounts receivable column. If we examine the journal of A. Roberts we find total debits to accounts payable amounting to $9,822.40. Had these

amounts been entered in an accounts payable or creditors' ledger column upon the debit side of the journal, the total could have been posted at the end of the month to the debit of the accounts payable controlling account by a single operation. A similar process could have been followed with respect to accounts receivable.

4. *The demand for current information.*—In order to provide for greater analysis of transactions, modern bookkeeping has adopted various books: a sales journal for recording sales, a purchase journal for recording purchases and cash books for all cash transactions. This analysis has been helpful to the business world, but further analysis of transactions must be secured by some other means. For this reason columnar books have been introduced which can be used to analyze purchase transactions, sales transactions, cash transactions, labor records, and so forth. The facts shown in books of this type would be of the same character as those shown in ordinary two-column books, but the information would be more detailed.

A merchant, as already mentioned, might make a sale of grain, groceries, flour and salt. In his sales book he would provide a number of columns and head each with one of these classes of merchandise. As the customer was charged thru the sales book, the detail of the information would be entered in the various columns and at the end of the week, or better, at the end of the day, the proprietor could turn to his columnar book and compute how much merchandise he had sold of each class handled by his business.

5. *Analyzing the daily entries.*—Modern business has made such rapid strides that a business man in order to compete with other individuals in the same and similar lines of endeavor must know weekly, sometimes hourly, the conditions of his various departments. He wants to know how much merchandise has been sold in department A, how much merchandise of a certain character a purchasing agent has been buying during the past week, what the consumption of another class may have been in the factory from day to day, how many individuals he has employed at the plant, what is the size of the pay-roll and how it is divided, and the like. It would suit his particular needs better if he could tell every day exactly what has happened thruout the various departments of his establishment, but in order to secure information in full he would be obliged to go to a considerable amount of expense. However, he can secure a portion of this information by the introduction of columnar books for analytical purposes.

6. *Analyzing entries and the controlling account.*—It will be recognized that in order to post the totals of various classes of items at the end of each month it will be necessary to secure related information that should be posted. The introduction of the columnar books will permit the bookkeeper not only to analyze transactions as recorded but to foot the various col-

umns from day to day, securing cumulative footings at the end of the month which he can post to the respective operating accounts of the business.

In this manner the bookkeeper could post totals from the "summary of sales" to the debit of the controlling account for accounts receivable. He could as readily post the total amount of purchase credits to the accounts payable controlling account in the general ledger. Controlling accounts are not limited to "accounts receivable" and "accounts payable." Controlling accounts may be introduced in the general ledger which show the total amount of labor expense, that is, the salaries and wages paid to the factory help during the month. Another book might show the details of this record, indicating the various departments against which the salaries and wages had been charged. It can be seen that the preparation of summaries at the end of the month, and postings from these summaries, is not satisfying if by an easier method we can obtain the results from day to day.

Columnar books are now frequently employed to segregate various kinds of information pertinent to the business which is helpful to the management in making decisions. For such purposes some books employ two columns, three columns, four columns, and so on up to forty-eight columns in some instances. Other books have been introduced with cut sheets which show a number of columns upon the master or larger sheet and an additional number of columns upon an insert. The master and the insert sheets are employed in combination, that is, the horizontal rulings are identical on both sheets.

7. *Analyzing receipts and disbursements.*—The general appearance of a columnar book is much the same as the appearance of any other book of original entry. The typical journal ruled book has a heading space, a space for the date at the left, the center space for the name of the account and the explanation, together with the folio. Two columns at the right of the page are universally employed for monetary information. Practically the same arrangement is employed in the columnar book, but in addition to the two monetary columns there are introduced as many columns as are necessary for recording the particular information desired. The number of columns introduced varies according to the character of the business, the type of information to be shown and the volume of the entry.

8. *Discount expense—discounts earned.*—Many merchants have established "terms" with their customers which permit each customer to make a deduction in the form of a discount from the face of all invoices rendered to him, such discount being based upon prompt payment of the invoice. In order to record the amount of the discount and to show in the same book the relation of the discount to the payment, a third column is often introduced in the cash book. Discount deducted by a customer is a loss or an expense to the business.

In like manner, discounts taken by the proprietor

CASH RECEIPTS

For the month of January, 19-

Date	*Account to be Credited — Explanation*		*Folio*	*Net Cash*	*Dis-count*	*Total*
Jan. 2	John Simons	Dec. 12	21	$11.76	.24	$12.00
	Henry James	Dec. 10	27	13.72	.28	14.00
	Cash Sales	Today	82	102.60		102.60
	Total receipts			$128.08	.52	$128.60
	(Cash debit)		25			
				Debit Cash Ac-count	Debit Dis-count Lost or Ex-pense	Credit Indi-vidual Ac-counts

CASH DISBURSEMENTS

For the month of January, 19-

Date	*Account to be Debited — Explanation*		*Folio*	*Net Cash*	*Dis-count*	*Total*
Jan. 2	Clerk hire	To Jan 3	101	$65.00		$65.00
10	Broadway Hardware Co.	Inv. 12/20	117	17.64	.36	18.00
12	Frank Hamon	Drawing a/c	200	25.00		25.00
	Total disbursements		1	$107.64	.36	$108.00
	(Cash credit)		26			
				Credit Cash Ac-count	Credit Dis-count Earned	Debit Indi-vidual Ac-counts

upon prompt payment of invoices affect income on the credit side of the profit and loss statement. A column is therefore introduced upon the disbursement side of the cash record and all discount earned entered therein. The application of this plan to receipts and disbursements is shown in the cash book illustrated.

If the receipts for the month of January should be expressed in journal form they would be indicated as follows:

Cash Account (Dr.)	$128.08	
Discount Loss (Dr.)	.52	
John Simons (Cr.)		$ 12.00
Henry James (Cr.)		14.00
Cash Sales (Cr.)		102.60

In like manner the disbursements for the month expressed in journal form would appear as follows:

Clerk hire (Dr.)	$ 65.00	
Broadway Hardware Co. (Dr.)	18.00	
Frank Hamon (Dr.) Drawing account.	25.00	
Discount earned (Cr.)		.36
Cash disbursed (Cr.)		107.64

The posting of debits and credits would of course follow journal entries. The equilibrium of accounts would be maintained, and a trial balance extracted from the ledger accounts at the end of the month would reflect the mathematical accuracy of the records.

9. *Columnar cash book.*—Let us go back to A. Roberts, the merchant whose books were discussed in the previous chapters, and determine whether a columnar cash book other than the one employed would

have been helpful to Mr. Roberts. Suppose a column had been introduced upon the debit side (receipt side) for entering the total amount of each payment received from customers. If this had been done there would have been items entered in the accounts receivable column totaling for the period $5,183.76, which amount would have been posted in total to the credit of the accounts receivable controlling account in the general ledger, and the individual credits would have, of course, been posted to the individual accounts in the subsidiary ledger.

An accounts payable column could have been introduced upon the credit side (disbursement side) in which would have been entered the total of each payment made to the creditors. At the end of the month the total of this column would have amounted to $9,780.00, which would have been posted to the debit of the accounts payable controlling account in the general ledger, the detail amounts having been previously posted to the debit of the individual accounts in the subsidiary ledger.

10. *Columnar purchase book.*—As a merchant must purchase before he can sell, it is well for him to have a good method of recording these preliminary transactions. When a book ruled in the ordinary journal style is employed as a purchase journal, one column may be used to record the value of merchandise purchased, and the other column to record the expenses incurred upon invoices, for which a deduction is to be made. A book of this kind might be adequate for a small business, but quite inadequate if that business increased in size, or for a larger business of the same type. It is therefore essential that additional means of analyzing records be secured beyond those supplied by a plain two-column journal.

A columnar purchase journal would answer the requirements under circumstances similar to those suggested. The information representing purchases made, shown in the columnar purchase journal, would be taken from the face of the invoices received from creditors. Before making any entries in the purchase journal it would be necessary that the information to be recorded be verified by the checking up of the receipts of merchandise represented as having been delivered, and the prices and quantities shown upon the invoices.

When a columnar purchase journal is employed, the total amount of the invoice should be entered in the total column and the same amount should be entered in another column representing the character of the merchandise purchased. If two kinds of merchandise have been purchased and are represented by one invoice, the value of each kind of merchandise should be entered in the respective columns provided.

After all purchase invoices have been entered in the purchase journal and extended to the various analytical columns, the purchase journal should be totaled and footings should be entered in all columns. The footings might be entered from day to day in pencil, as has been suggested in the case of the cash book. The bookkeeper should prove the entries by cross addition of the various totals, the sum of which should equal the footing of the total column. At the end of the month the bookkeeper should bring forward the total footings for all columns and rule off the purchase journal, entering the footings in ink. He is then prepared to post the totals of the various columns to the proper accounts in the general ledger.

11. *Posting.*—During the month the bookkeeper should post the detail of the various invoices to the credit of the creditors' accounts in the underlying ledger. At the end of the month the footing of the "total" column should be posted to the credit of the creditors' ledger controlling account in the general ledger. The totals of the analytical columns should be posted to the debit of the respective accounts in the general ledger represented by the name at the head of each column in the purchase journal.

Any time during the month the proprietor can refer to his purchase journal and see from the footings of the columns the value of the merchandise which he has purchased of each and every class dealt in during that month. This would show the proprietor by comparing his purchases with sales whether his merchandise inventories were increasing, and what kinds of merchandise were increasing in inventory value.

It is sometimes an advantage to have the analytical columns in pairs headed "Unit" and "Value" respectively. In a Unit column would be entered the quantity of the merchandise purchased. For instance, a merchant in the woolen business and buying cloth by the bolt, consisting of fifty or sixty yards each, would have his bookkeeper enter in the unit column the total number of bolts purchased of each particular grade of goods, together with the value of the merchandise as exhibited by the face of each invoice. The proprietor would, with this, know the value of the merchandise he has been purchasing and by comparing the quantity of units purchased with the quantity of units sold of the various classes of material, he would be able to control in a general way the fluctuations of the inventories or stock accounts.

12. *Illustrating columnar purchase journal.*—What has been said about the purchase journal makes it clear that the information shown upon the books of A. Roberts, whose business was discussed in earlier chapters, can be indicated upon columnar books even better than upon the books regularly employed by him. We speak particularly in this instance of purchases shown upon his purchase journal as having amounted to $19,602.40. If the purchase journal had been columnar in ruling and the columns headed as follows: Ingrain, Moquette, Brussels, Oilcloth, Linoleum, Wilton, Mr. Roberts could have analyzed his "purchase invoices" as received, and entered in the respective columns the value of merchandise which

should be so classified. Then at the end of the period the totals of the columns would have appeared as follows:

Ingrain	$ 3,692.97
Moquette	3,326.25
Brussels	2,608.18
Oilcloth	1,570.00
Linoleum	2,805.00
Wilton	5,600.00
	$19,602.40

The totals of the columns would have equalled the total purchases of $19,602.40 and these respective totals could be posted to the debit of the purchase accounts of the same name as the headings of the columns. The total amount of the purchases would be posted in total to the credit of the accounts payable controlling account in the general ledger if such an account had been introduced. The controlling account has been discussed elsewhere. It will be recalled that the balance shown in the controlling account at the end of the month should equal the balances shown in the various detailed accounts of the same classification.

13. *Columnar sales records.*—What has been said of the purchase record journal is equally true of the sales record journal. It would be an advantage to a proprietor to show in his book the analysis of sales as the transactions are made. By using a number of columns in the sales journal it is possible to analyze

each sale from the copy of the invoice sent to the customer. Entries would be made in the same manner as in the purchase journal, and the proof of the work would be arrived at along the same lines. The following shows the form of such a book.

SALES

March 19 __

DATE	L.F.	ACCOUNT DEBITED		EXPLANATION	AMOUNT DEBITED	PREPAID FREIGHT	OATS SALES	HAY SALES	CORN SALES	BRAN SALES
		Bro't forward			$14,152 —	$395 —	$4,575 —	$3,675 —	$3,825 —	$1,682 —
28	39	C.Larson	91		165 —	15 —	100 —	50 —		
29	✓	Cash sales	92		220 —			95 —		125 —
29	60	P.Peterson	93		231 —	16 —	125 —		90 —	
31	95	J.Schmidt	94		297 —	22 —			150 —	125 —
31	96	R.Shortt	95		657 —	67 —	100 —	390 —	50 —	50 —
					$15,722 —	$515 —	$4,900 —	$4,210 —	$4,115 —	$1,982 —
				Summary		79	80	81	82	83
				Cash ✓	1,720 —					
				On account 69	14,002 —					
					$15,722 —					

During the month all detail postings are made to the debit of the respective customers' accounts in the underlying ledger. At the end of the month the totals of the analytical columns are posted to the credit of the various accounts representing sales, and the footing of the "total" column is posted to the debit of accounts receivable in the general ledger. If there is any gain in having columns in the purchase journal for units as well as values, the same method should be used in the sales journal.

If a columnar sales book had been introduced in Mr. Roberts' office, and if the sales had been analyzed as they occurred, the totals of the respective columns would have been as follows:

Moquette	$ 2,024.07
Linoleum	2,318.78
Oilcloth	1,079.14
Ingrain	2,065.80
Brussels	1,696.05
Wilton	6,799.00
Total sales	$15,982.84

Mr. Roberts would then have posted from the footings of the respective sales columns the amounts of the credits to the sales accounts of the same names as the columnar headings. The total sales of $15,982.84 would have been posted in the general ledger to the debit of the controlling account—accounts receivable. As the sales invoices were entered in the sales journal, the amounts would have been posted in detail to the respective customers' accounts representing the customers. At the end of the month the balances extracted from the various customers' accounts should be entered in the trial balance book. The total of these balances so entered in the trial balance book should agree with the balance shown in the controlling account at the end of the same month.

The foregoing discussion of purchase and sales journals assumes that individual purchase accounts and individual sales accounts are kept in the general ledger. Instead of posting the total of all purchases to the debit of the merchandise account and the total of all sales to the credit of the merchandise account, these various totals would be posted respectively to the debit of individual purchase accounts and to the credit of individual sales accounts. Thus when making a review of the ledger account balances one would be quickly able to determine the value of purchases to date and the value of sales to the same date. If separate purchase accounts are maintained and separate sales accounts are maintained, then it follows that separate inventory accounts should be maintained as well.

Therefore, at the end of the period merchandise inventory accounts should be set up in the ledger showing the following information:

Ingrain	$ 1,971.92
Moquette	1,672.50
Brussels	1,238.92
Oilcloth	635.61
Linoleum	858.24
Wilton	225.00
Total inventory	$ 6,602.19

Let us review the information as to sales inventories now available and determine whether such a review is helpful to the better understanding of the business of A. Roberts. For example, we find the facts which follow for ingrain carpets:

Sales	$ 2,065.80
Add inventory at the end of the period	1,971.92
Total	$ 4,037.72
Deduct purchases	3,692.97
Result indicating a profit on ingrain	$ 344.75

The same process applied to each class of merchandise successively shows gross profits on the respective sales which amount to the following:

Moquette	$ 370.32
Linoleum	372.02
Oilcloth	144.75
Ingrain	344.75
Brussels	326.79
Wilton	1,424.00
Total profit on merchandise..	$ 2,982.63

14. *Summarizing A. Roberts' business.*—By adapting columnar books to the business of A. Roberts, it will be recognized that a certain amount of posting detail is eliminated. Controlling accounts have been introduced which would be an advantage in extracting a trial balance from the general ledger. Instead of having several customers' accounts in the general ledger there would be one controlling account which would show by its balance $7,709.78 and this amount would be supported in detail by the customers' accounts in the accounts receivable ledger.

15. *Petty cash columnar records.*—The petty cash

record as ordinarily kept in a great many offices is an inadequate posting medium because disbursements are not analyzed or classified. The introduction of a simple columnar petty cash book will answer a great many purposes and furnish information desired by every proprietor. Sometimes large sums of money are spent in cash by the bookkeeper in the employ of the company. Unless the records of these payments are complete, they are difficult for the proprietor to understand, for an auditor to audit, or for the bookkeeper himself to explain at any subsequent date.

The modern practice is to use a petty cash slip representing each disbursement made. To provide a receipt this slip should be signed by the person receiving the money. It then becomes the bookkeeper's voucher for entering the records in a book. When the petty cash slips for the day have been turned over to the bookkeeper he should record them in the petty cash book by entering first the total of each slip in the "total" column, and the detail of each slip in its appropriate column. These charges will vary, but car fare, outside telephone calls, and express charges paid in cash are typical illustrations.

The mathematical accuracy of the entries is proved by the same method as is used in the purchase or sales journal. At the end of the month the postings would be made in the cash book from the footings of the various columns. A debit would be made to the expense accounts in the general ledger represented by each column. The total of the disbursements would be credited to the petty cash fund account in the general ledger. It has already been mentioned that under the imprest method it is not absolutely necessary that a book entry be made of all petty cash disbursements, but that the disbursements as made be summarized and recorded upon one major voucher and posted from that voucher to the various operating accounts in the general ledger. The total of this voucher is then credited as a disbursement of cash and a check drawn to reestablish the fund.

Other books of original entry have been designed along columnar methods, such as a columnar labor distribution book, a columnar stock room requisition book, a production record, a labor absence record, an office salary distribution record, and so forth. Possibly there has been an over-production of columnar books. There has at least been an over-introduction of columnar books in a number of offices. The fact that the columnar books provide a means for an analysis has stimulated stationers to develop a variety of books of all types of columnar design, sometimes practical, sometimes impractical. Most columnar books have been books of original entry, to be used as posting mediums.

A number of books of the columnar style have also been introduced for the purpose of compiling statistical data. In fact, there is a large field for this work. Records can be summarized from day to day, and the information so summarized can be entered in the columnar books of this type. Then at the end of the month or of the year the data can be totaled and the result accurately reported.

16. *The columnar ledger.*—While the greater number of columnar books are being used as books of original entry, columnar ledgers are also being constantly employed by bookkeepers and accountants, and with considerable advantage to the employes and to the proprietor. The ledger most familiar is the two-column ledger—that in which are shown accounts with one debit column and one credit column each. Ledgers can be introduced with three columns; such a ledger showing a debit column, a credit column and a balance column.

There is another type of ledger which can often be employed with considerable advantage to the bookkeeper and to the credit department. Sometimes the credit department desires to know whether a customer is paying on time, whether he is returning a considerable amount of merchandise purchased, whether he is discounting his bills, and so forth. By introducing a four column customer's ledger sheet, the bookkeeper can employ the columns as follows: one column for the debit of purchases made by the customer, the second column for the net amount of cash received on account, the third column for the discount taken by the customer, and the fourth column for the value of returns made and allowances demanded by the customer. By reference to such a book the credit man or a bookkeeper can readily analyze a customer's account and can form an opinion quickly and definitely as to the proper policy in dealing with his requests for credit.

Another type of columnar ledger is one which is introduced in connection with a general ledger but used as a subsidiary ledger. Such a ledger might be used to record the details of repairs to plant and equipment. The total amount of repair expenses would be charged to an account in the general ledger and the same amount would also be charged in an analytical ledger supporting the controlling account. The columns in the analytical ledger would represent the character of the expense divided into the desired amount of detail —for instance it might be necessary to record the cost of repairs in respect not only to the main building of the plant, but to various kinds of machinery in the various departments of the institution. A department store might require a columnar ledger for the purpose of analyzing the various expenses of erecting and demounting stands and department booths. These items would be charged against the various operating accounts of the departments from time to time. It is quite obvious that it would be an advantage to have only one general account in the general ledger representing these expenses, and it is also obvious that an analytical record of these expenses would prove of advantage to the management.

Other subsidiary ledgers might be introduced—for instance, a ledger which would show the detail of various expenses in connection with the office or the general expenses in connection with the plant.

17. *Statistical information.*—Yearly statistics are compilations of daily records extending over three hundred and sixty-five units. In order to secure yearly statistics most conveniently it is advisable to accumulate the facts on the basis of the monthly period. Daily statistics to be used for all current purposes should be compiled day by day as they become available. They serve as the basis for the preparation of the more elaborate weekly and monthly reports. To analyze all records in order to arrive at specific information at the end of any year would be most difficult. It is a great advantage to be able to secure this information daily and to build up the structure of statistics gradually.

For this reason columnar books have been introduced for recording the daily statistical information. This information is merely the analysis of the various activities of the business as shown in detail upon original records. The sales would be analyzed each day and the result of the analysis as expressed in quantities and kinds would be shown upon a columnar record which could be maintained for entering concurrent daily records. Each day the statistician would turn to the columnar record representing sales and enter upon this record the analysis of the day, showing nothing but the number of sales transacted and the quantity and value of the respective kinds of merchandise sold. The next day he would repeat the operation, and at the end of the week the totals of six days' activities are recorded upon the columnar sheets. Each week another sheet is introduced or a columnar sheet could be introduced for a month providing for twenty-five horizontal spacings and if necessary thirty-one horizontal spacings in addition to a monthly total. By binding the weekly or monthly sheets in a binder, the statistician has a built-up record of sales analyses which at the end of the year affords him statistical information for the sales department. This record would be constantly referred to by the head of the sales department and would be of great advantage to this department as well as to the management.

Columnar sheets may be introduced for recording statistical information in almost every department of the business. They are used for recording labor details such as the number of men employed each day, the number of men injured each day, the amount of work produced by the force each day, the average quantity of manufactured goods turned out per capita each day, and as the records are built up from day to day the statistics of this particular business would be at hand and completed on the last day of the year without any extra amount of arduous effort.

18. *The advantage of columnar books.*—The advantages that can be obtained by the introduction and application of columnar books, can be briefly summarized as follows:

1. They provide for the analysis of the activities of each phase of the business
2. They furnish a means for recording original facts

3. They facilitate accumulating the analytical and daily summary information
4. They offer a proof of the mathematical accuracy of the entries
5. Their use cuts down a large number of general ledger postings
6. They are easy to refer to for specific information
7. They can be used with great advantage for statistical purposes.

19. *The limitation of the columnar book as a daily detail record book.*—A columnar book of four or five columns will not be large, and can be handled without difficulty as a daily posting medium. Entries can be made in such a book as the necessity may arise and the information entered can be easily understood.

Books of even ten and twelve columns can be used to advantage as books of original entry in many offices, and such books are employed in the same manner as the smaller ones. When, however, a great number of columns are introduced in a book of original entry which is being constantly employed, it is not proof against inaccurate entries. The book becomes unwieldy, takes up too much valuable space, wears out quickly and often becomes a nuisance.

When all entries require extended analysis the division of a business can sometimes be effected by introducing other departments or dividing departments already in existence. This might not be practical, therefore another expedient could be employed. In place of the extended columnar book, small sheets can be introduced with printed summaries to be employed for daily analytical record. The data entered upon each sheet is recorded in a columnar book of much greater size. Detail postings are made daily from the small summary sheets, while the totals as per the columnar footings in the larger books will be posted to the various general ledger accounts at the end of each month. When it becomes expedient to increase the size of any books, new methods should be developed.

REVIEW

What are the advantages to be gained from the introduction of a columnar journal; a columnar cash book?

What additional information is gained from the use of columnar sales and purchase books?

Explain the use of controlling accounts in connection with columnar books.

What determines the extent to which columnar books may be used? To what books can the use of columns be appropriately extended?

CHAPTER XI

OPENING, OPERATING AND CLOSING THE BOOKS

1. *Getting a right start.*—In embarking upon a new business venture it is essential to have definite plans for manufacturing or selling. It is no less important to plan an adequate accounting system—a system so constructed as to record properly all the business activities and their results, and which will be sufficiently elastic to expand with the growth of the business.

Nowhere is it more essential to know the results for the period, the effects of managerial policies, than in a new venture, where failure to ascertain exact costs and profits may prove completely disastrous. Assuming then the accounts essential to the business have been wisely selected and definitely characterized we may inquire into the procedure of opening the books.

2. *Opening the books.*—When an individual starts out in business, he may have cash, merchandise, or machinery with which to operate. The nature of this investment will be recorded in the general journal, which, by virtue of its use for unusual or infrequent entries is employed to hold the opening entries, as well as the necessary closing or adjustment entries preparatory to closing the accounts into the profit and loss account.

Let us assume that one James Crawford begins business with cash to the amount of $5,000, two desks and a safe valued at $150, and grain valued at $2,500. He rents a store at 420 State Street at $100 a month. The opening entry in the general journal would be as follows:

March 5, 19–		
Cash	$5,000.00	
Furniture and fixtures (consisting of two desks and a safe)	150.00	
Grain	2,500.00	
James Crawford, capital account............		$7,650.00

Today entered the grain business, retail, investing assets as stated, and renting a store at 420 State Street at a monthly rental of $100.00.

Further entry should be made, showing the detail inventories of grain to the value of $2,500.00—the receipt of the $5,000.00 in cash would also be recorded in the cash book, but is here shown since it is advisable to concentrate in one book all entries connected with the opening of the business. The repetition in a book of original entry of an item already entered in another book occurs now and then for special reasons. In such cases, it may be remarked in passing, it is of course posted from one book only.

The equilibrium of debits and credits is maintained in the opening entry, since, as shown here, the amounts invested equal the net worth. Altho the capital investment is shown differently under the various legal types of organization, the principles underlying all these entries are the same. The opening entries for partnerships and corporations are fully explained in the Modern Business Text on "Accounting Practice." The illustration here should suffice to explain clearly the opening of the books for a sole proprietor. If any liabilities are owing when the books are opened, they are, of course, to be recorded, and the total of the liabilities deducted from the total of the assets, to ascertain the net capital investment. All opening entries are for the purpose of erecting accounts which show the amount of the invested capital and the manner in which it has been invested. But the investments of capital and the amount of capital are obviously equal to each other, thus the equilibrium of accounts is established upon making the opening entries, since the debit and the credit balances are equal in the beginning.

3. *Maintaining the equality of account balances.*—The equality of ledger accounts is maintained by preparing entries which record the effects of business transactions upon the accounts representing assets and liabilities, and upon those representing the elements of income and expense. All entries in books of original entry should be made correctly or verified before they are recorded in the ledger accounts.

Some of this work of verification will be conducted daily, while other work will not be completed until the end of each month, possibly not until the time of closing the books. However, all books of original entry should be carefully scrutinized and all entries should be compared as to the equality of debits and credits as frequently as possible. All entries should be footed and the footings should be proved, by means of a double check, or by cross footing the totals of the columns in the case of columnar books whenever practicable to do so. The bookkeeper should make a comparison of sales book entries with the copy of the sales invoices, foot the sales books, foot the cash book, both receipt side and disbursement side; foot the purchase journal and cross-foot the columnar footings of all books. At the end of the month all books of original entry should be ruled off and the final footings proved. Then all "end of the month" postings of totals should be made to the proper general ledger accounts.

4. *Balancing the cash book and reconciling with the bank balance.*—At the end of each month the bookkeeper will foot the columns of the cash book and ascertain that the columnar footings are in agreement with the total net amount of receipts and the total net amount of disbursements.

He should then add to the net receipts the balance on deposit at the beginning of the month and determine the cash book balance by comparing the grand total with the disbursements made during the same period. The balance arrived at in this manner should be the amount of money on deposit in the bank account of the firm.

Balance on deposit March 1	$1,372.25
Net cash receipts for March	2,635.55
Total to be accounted for	$4,007.80

Turning to the disbursement or credit side of the cash book, the bookkeeper should enter the total of $4,007.80 in the net cash column and calculate the difference between the disbursements and the amount to be accounted for as follows:

Total net disbursements for March....	$2,875.65
Balance on deposit March 31.........	1,132.15
Total to be accounted for............	$4,007.80

5. *The bank reconciliation or the bank agreement.* —The mere fact that the balance in the cash book is stated as $1,132.15 will not prove that the balance is correct. True, the difference between the debits and the credits was clearly indicated, but does the money remain to the credit of the firm with the bank? Turning to the check book the bookkeeper should refer to the stub of the last check recorded in the cash book during the month of March. He should place upon a sheet of paper the total amount of the check withdrawals to this point, which should agree with the credit side of the cash book; that is $2,875.65.

In like manner he should turn to the reverse side of the check stub upon which he has entered the last deposit details of the month. The total of all deposits including the balance at the beginning of the month should equal the cash figure of $4,007.80. The result is a balance of $1,132.15.

Naturally, this is an obvious result if records have been correctly kept. Two questions arise: has the money recorded in the check book been deposited and are there any checks outstanding, that is, checks that may not have been paid by the bank before the end of the month? Have the checks been drawn in accordance with the records upon the stubs and in the cash book entries? The bank pass book entries should be checked with the check book records of deposits and withdrawals in order to determine the disposition of the funds received. The bank pass book might record a balance of $1,575.65 instead of $1,132.15.

By checking the canceled checks returned with the entries made upon the check stubs a verification of those entries can be made and the unchecked items would be the outstanding unpaid checks. A concrete example might explain the situation more clearly.

Bank Pass book balance March 31.		$1,575.65
Outstanding checks No. 62........	$ 13.12	
64........	112.57	
67........	200.00	
81........	117.81	
Total amount of outstanding checks deducted		443.50
Equals the cash book balance of..		$1,132.15

This is a reconciliation of the bank balance as stated by the bank with the records made in the check book and the cash book of the company. It does not prove, however, that all the money received by the firm has been deposited, but it is an indication that all money which has been drawn by the firm against the bank account has been recorded correctly as disbursements in the cash book, and it is a very good check upon the bookkeeper's accuracy.

6. *Posting the totals to the ledger accounts.*—During the month the detail records should have been posted to the subsidiary ledgers and the concurrent data to the general ledger. At the end of the month there are a number of totals which must be posted to the general ledger accounts and these postings should be made at one time, if possible—that is, during one day.

In order to proceed in an orderly manner, the bookkeeper must adopt a definite routine. He may accomplish this by posting first one book and then turning to another book and completing the work of posting that book before employing his time upon any other book of original entry. An excellent order for one to follow is:

Cash Book, receipts and disbursements
Petty Cash Book or summary of the entries
Journal
Purchase Records
Sales Records

(a) Cash book.—After the bookkeeper has made the "total" postings of the cash receipts and cash disbursements from the cash book, he should then take up the various accounts such as accounts receivable controlling account, discount lost, accounts payable controlling account, discount earned, and sundry income or expense accounts which have been summarized thru the columns of the cash book.

(b) Petty cash.—The bookkeeper should then turn his attention to the petty cash book or the summary of the petty cash entries and he should post to the credit side of the petty cash account in the general ledger the total disbursements made for the month. The next operation would be to post the totals recorded in the columns of the petty cash book to the debit of the various expense and asset accounts represented by the disbursements.

(c) Journal.—Unless the journal employed by the bookkeeper is columnar in form, there would be few totals to be posted to the general ledger accounts. Of course, it is understood that journal entries affecting the accounts receivable and accounts payable ledger accounts are summarized at the end of the month in order to post the totals to the controlling accounts. There might be other controlling accounts in the general ledger such as a general expense account, or general repair account, but these accounts would be more apt to be affected thru entries made in the purchase journal or possibly thru the cash book, than by entries made in the regular journal.

(d) Purchase journal.—The bookkeeper's attention should then be directed to the purchase journal from which he would post to the credit of the creditors controlling account the total value of the purchases made during the month. He would then turn to the expense or operating accounts and those accounts representing the various kinds of purchases made during the month. The columns of the purchase journal indicate to him the names of the accounts in the general ledger which would be affected and the postings should be made to the debit of these accounts.

(e) Sales journal.—After completing the work upon the purchase record book, the bookkeeper should refer to the sales journal. Here the entries may have been totalled from day to day and the various totals accumulated so that the information would be shown daily. At the end of the month the total sales for the month would be indicated upon the last page of the records. A columnar sales book may have been employed during the month, and under such circumstances the totals of the respective columns would be indicative of the character and the amount of the sales made during the month. In any event, the important work is posting the total of the sales to the debit of the accounts receivable controlling account in the general ledger. The next operation is the posting to the credit of the various accounts representing sales the totals as shown in the various columns of the sales journal.

7. *Balancing and closing the ledger accounts.*—At the end of each month the bookkeeper will be obliged to go thru the ledger and extract from the accounts the balances indicated therein. In performing this operation, there are two methods which may be followed: one is the practice of ruling off each account; that is, to draw footing lines below the last

entry of each account, and enter in the footing spaces the total of the debit or the credit side, whichever is the larger, and transfer the balance to a new account. The balance is the excess of one side of the account over the other; if the credit side of an account is greater the balance is a credit balance, while if the debit side is greater the balance is a debit balance. Another practice is that of not closing the accounts in the general ledger monthly, but merely to foot the respective sides of all accounts and enter the footings in small lead pencil figures and to calculate the balance without actually ruling off the accounts. When each calculation has been made, the balance, if a debit balance, should be written lightly in pencil in small figures upon the left hand side of the account immediately beneath the last line of entry. If a credit balance should be indicated, the balance in like manner should be indicated in light lead pencil figures upon the credit side of the account immediately beneath the last line of entry.

After the bookkeeper has gone thru the ledger and entered the balances of the various accounts as suggested, he is prepared to take off a trial balance from the ledger for the purpose of proving the accuracy of the debit and the credit postings made during the month. A great many bookkeepers make the mistake of balancing their accounts in an irregular manner, beginning sometimes in the middle of the ledger and proceeding either forward or backward. The best practice is to start at account Number 1 or the account shown upon the first page of the ledger and to balance the account, then proceed in sequence thruout the ledger, extracting the balance of each and every account from cover to cover of the ledger. Under any other circumstances or method the bookkeeper is liable to miss a number of accounts in going thru the ledger.

8. *Sundry journal closing entries.*—At the end of each month it becomes necessary in almost every business for the bookkeeper to make certain explanatory entries in the journal. These entries are sometimes made for the purpose of recording the accrual of liabilities up to the end of the month, the amounts of which may or may not have become due and payable at the end of the month. A few entries of this nature are illustrated in Chapter IX. It is obvious that in every business there are some transactions which arise and are consummated almost immediately. There are other transactions which originate during a current business period but which, because of their nature, may influence results in one or more subsequent periods. For example, there are certain items of expense or income which altho not collectible or payable in the current period, should nevertheless be considered in the financial statement as they affect current operations. An asset may have been increased or a liability may have been increased, but the amount of the increase or the amount of the decrease cannot be collected as an asset nor can it be levied against the firm as a liability until the date of maturity.

There are two bases of accounting, one known as the cash basis and the other known as the accrual basis. Under the cash basis the management would consider only those transactions which have been completed during the month, while under the accrual basis the management considers all transactions which have a bearing upon the current month, having either a beginning or an ending. This would necessitate the erection of special asset and liability accounts upon the books which cannot or need not be closed at the end of each month. Interest accrued on notes payable, interest accruing on notes receivable, prepaid insurance and prepaid advertising are such accounts.

REVIEW

What is the purpose of the opening entries? What should these entries contain?

Explain the method of balancing the cash book. Will the balance as shown by the bank agree always with the balance as shown by the cash book? How may the discrepancy occur?

What routine is followed in posting to the ledger?

What journal entries may be necessary to bring the books in accord with the facts?

CHAPTER XII

THE TRIAL BALANCE

1. *Trial balance as proof of accuracy.*—The trial balance is a schedule of the debit and credit balances of the ledger accounts, that is, a list of the open accounts in the ledger together with the balance in each account. The total of all the debit balances should equal the total of all the credit balances, since corresponding debits and credits have been made for each transaction recorded. If the sums of the debits and credits do not agree, there is at least one error in the work, perhaps in addition, perhaps in copying the amounts, or in the accounts themselves.

If the totals differ by only one figure, it is probable that the error is one of addition. If the difference be divisible by two, some balance equal to half the amount may have been placed on the wrong side of an account, since this would result in a difference of twice the amount involved. To verify or correct the work, however, it will usually be necessary to check the postings to the ledger.

If the trial balance finally proves, it may be regarded as reasonably certain that identical debit and credit postings have been made, altho, in fact, two errors, by coincidence equal and offsetting, may have occurred.

There is, however, a point in which the trial balance fails as a check on the accuracy of the work. While it would indicate whether equal debits and credits have been made, it would not reveal the fact that an amount had been posted to the debit or credit of the wrong account. For example, if a payment on account made by John Smith were thru error credited to the account with James Smith, the trial balance would not reveal it, since the amount was placed on the credit side, as it should have been. Only complete rechecking of the postings, a chance notice of the error, or a complaint from the customer would bring such a mistake to light.

2. *Trial balance as an accounting record.*—The use of the trial balance is not limited to its function as watchdog over the postings. To one familiar with the business, it furnishes a fair idea of the progress made. While it is not a complete record since it lacks the inventory at the end of the period and does not show the profit for the period, it furnishes the total sales and purchases for the period, the amount of cash on hand, the amounts due from customers and to creditors. By comparison with the trial balances for earlier periods, any startling increase or decrease in the accounts will be brought out for explanation or remedy.

With additional information as to the inventory on hand and the profits for the period, the trial balance may be utilized in the preparation of financial statements which show clearly the tendencies and results of the period under review.

3. *Preparation of the trial balance.*—Usually the

trial balance is taken monthly, because in case of error it is easier to check up the records for a month than for a longer period. But a more important reason is that it is used for the preparation of monthly summaries of condition and of progress, and is in itself a record of considerable importance.

For these reasons it is well to keep all trial balances in a trial balance book. Of course, a trial balance can be taken off on separate sheets of paper, but there is an advantage in the more permanent record. When a trial balance book is added to the accounting books it insures the preservation of information which has considerable value to the accountant and the manager. Such a book has a column for the names of the accounts, together with double columns—one for debits and one for credits—for each month of the year. Undue size is often prevented by having the columnar sheets cut short, which avoids the necessity of rewriting the names of the accounts, and permits the balances to be entered in the successive columns at the end of each month.

Altho there is no standard order for the arrangement of the accounts in the trial balance, they should be so arranged as to facilitate the preparation of other statements, and should follow the order of the accounts in the ledger.

4. *Form of trial balance.*—In the accounts of A. Roberts given in earlier chapters there will be found (Chapter IX) the form of a trial balance. By referring to it we note that in the debit column there are a

number of balances representing assets and that in the credit column there are a number of balances representing liabilities. It will be further noted that there are balances representing certain expenses of the business which are typical of nearly every business, and that the balance of the sales account is shown as a credit balance. The proprietor's drawings are shown in one account and the proprietor's capital at the beginning of the year is shown as a credit balance in the credit column. The inventory balance at the beginning of the year, had there been one, would have appeared upon the trial balance, but there is no record on the trial balance of the inventory at the end of the year. The inventory at the end of the year must be calculated and entered separately as a foot note to the statement before the accountant can compile a profit and loss statement and a statement of assets and liabilities.

5. *Subsidiary ledger proofs.*—As we have learned, there are usually two subsidiary ledgers known as the accounts receivable ledger and accounts payable ledger. The total of the balances shown in these ledgers at the end of any month should equal the total balances shown in the respective controlling accounts of the general ledger, "accounts receivable" and "accounts payable." That is, at the end of the month the bookkeeper should extract from the accounts receivable ledger the various account balances classified as to debits and credits and enter them in trial balance form. The total amount of the balances, that is, the net bal-

ances, should equal the total debit in the accounts receivable controlling account in the general ledger. By the expression net balances is meant the difference between any minor credit balances and the total of all debit balances. For instance, there are cases when a customer will overpay his account by a small margin or after paying his account will return a small quantity of merchandise for credit. This would result in a credit in his account which would be offset by the debits in other accounts. Strictly speaking, the credit balances shown in the accounts receivable ledger might be classified as liabilities, but owing to the fact that the proprietor expects to continue selling former customers, it is quite correct to treat such balances as deductions from the total debits.

6. *A trial balance and a simple working sheet.*—If the accounts in the general ledger are properly arranged before opening the ledger, at the end of the period a statement of profit and loss can be prepared without any great difficulty and with very little research or analytical preparation.

The preparation of these statements will be facilitated by the use of a six column sheet as on page 164, with proper headings for the purpose of showing the trial balance accounts, the profit and loss debits and credits, and the balance sheet accounts; which mean the assets, liabilities and capital. In the first two columns the debits and credits of the ledger balances are shown in the same manner as they would be upon any trial balance form. In the third and fourth columns

A PROPRIETOR

Trial Balance and Simple Working Sheet, December 31, 1917

Accounts	Trial Balance		Profit and Loss		Balance Sheet	
	Debits	*Credits*	*Debits*	*Credits*	*Assets*	*Liabilities and Capital*
Cash in bank	$1,972.75				$1,972.75	
Cash on hand	125.00				125.00	
Accounts receivable	10,000.00				10,000.00	
Merchandise—Jan. 1, 1917	4,550.25		$4,550.25			
Dec. 31, 1917				$3,500.00	3,500.00	
Furniture	150.00				150.00	
Real Estate and Buildings	5,100.00				5,100.00	
Accounts payable		7,542.25				7,542 25
Notes payable		1,500.00				1,500.00
A proprietor—capital		5,648.85				5,648–85
A proprietor—drawings	2,500.00		2,500.00			
Sales		35,225.40		35,225.40		
Purchases	20,000.00		20,000.00			
Office Expense	523.75		523.75			
Stationery	562.30		562.30			
Heat and light	125.00		125.00			
Telephone and telegraph	172.25		172.25			
Cleaning	27.45		27 45			
General expense store	212.00		212.00			
Porters' wages	700.00		700.00			
Salaries and Wages	2,550.00		2,550.00			
Freight and cartage	645.75		645.75			
	$49,916.50	$49,916.50	$32,568.75	$38,725.40		
Net profit			6,156.65			6,156.65
Profit and Loss Totals			$38,725.40	$38,725.40		
Total Assets					$20,847.75	
Total Liabilities and Capital						$20,847.75

the debits to the profit and loss account and the credits to the profit and loss account are written. In the fifth and sixth columns are entered the assets of the business, the liabilities of the business, the proprietor's capital at the beginning of the period and the profit made for the period, as well as drawings of the proprietor.

The reader should carefully note that the merchandise account of January 1, 1917, has been extended to the debit column of the profit and loss group and it should be further noted that an insertion has been made under the merchandise caption as of December 31, 1917, of the value of the inventory upon that date, \$3,500. The \$3,500 has been entered as a credit to the profit and loss and as a debit to the asset and liability statement. This practically has the effect of a journal entry, for "profit and loss" has been credited and an asset account has been debited. The difference between the debits in the profit and loss section and the credits in this section amounts to \$6,156.65. This amount indicates a net profit for the period in excess of the drawings of the proprietor during the period. In fact the total profit for the period was \$8,656.65, that is, the amount of the above excess plus the proprietor's drawings.

In determining the capital at the end of the period, it would be necessary to add the profit for the period to the capital at the beginning, the result in this case being \$11,805.50. The total assets as of December 31 amounted to \$20,847.75 and the total of the liability and capital accounts was the same amount. By reference to the totals of respective groups of columns it will be seen that the debit balance in each instance equals the credit balance.

The entry of $4,550.25 inventory value of January 1, 1917, in the profit and loss debit column has in reality the effect of making a journal entry in the books of account, debiting "profit and loss" and crediting the accounts representing the inventory value at the beginning of the period. It can be seen that this in fact represents a transfer of $4,550.25, as the amount is not again shown as a debit balance, that is, it is not shown as an asset upon the balance sheet at the end of the period. Therefore this illustrates the result of a journal entry having been made and the item being removed from the active ledger accounts.

It will be noted that the values of furniture and real estate and buildings have merely been extended to the asset column of the balance sheet and that the liability accounts, accounts payable and notes payable, have been extended to the credit side of the balance sheet. Other assets such as cash in bank, cash on hand and accounts receivable, have been extended in a similar manner, and the proprietor's capital account has been extended as a credit balance.

7. *Cash basis and the accrual basis.*—It has already been noted that there are two practical accounting bases. On the cash basis, all transactions which originate or end in the transfer of cash are recorded and no other transactions are entered unless there is a defi-

nite right or obligation of the proprietor involving the payment of cash. In other words, at the end of each month only such transactions as have been completed during the month are entered in the records.

The other method of accounting known as the accrual basis involves taking into the month's records all transactions which have occurred during the month, whether they have been completed or not. In this case if a transaction is begun or continued during the month, the proprietor is obliged to consider its value at the end of the month, contingent upon its completion. It is quite evident that a system which indicates the financial position of the business at the end of the month, such conditions being contingent upon the completion of contracts entered into during the month, is more desirable from an accounting standpoint, as it is more complete and thus assists the proprietor the better in forming his judgments in respect to the future.

Incident to the many transactions of purchases and sales made during any one month there would result some items of expense which have originated during the period which could not be considered, if only the cash basis of accounting were accepted. Among them would be the commissions to be paid to the salesmen for the sales made, the expense of delivering the merchandise purchased to the warerooms of the company, the expense of delivering some of the merchandise sold to its ultimate destination, the possible loss owing to bad debts. There are other expenses which may have occurred during the month but which would not be recorded on the books during the month under the cash basis system of accounting. One of these would be the balance of salaries which might be due employes from the date when they were last paid until the end of the month. Usually salaries are paid weekly. If the end of the week should occur on the twenty-seventh of any month, there would be from three to four days between the pay roll date and the end of the month, and the amount of salary earned by the various individuals during this period should be included as an expense against the activities of the month during which the employes have served the company.

8. *Accrual basis records.*—If the accrual basis of accounting is adopted, it will be absolutely necessary to keep records of all expenses which have originated during the month even tho they may not have been paid. It will also be necessary to record the liabilities that may be credited as the result of the receipt by the business of some benefit from another.

Therefore, a record must be made in the books of all assets that are received during the month, irrespective of whether or not the cost of the assets has been reported to the proprietor upon invoices rendered. It will also be necessary to record upon the books, in addition to the liabilities which have been definitely recorded therein, the amount of all liabilities created during the month which would affect the ultimate financial standing. If this procedure is followed the profit and loss sheet at the end of any month will indicate clearly the progress of the business or in the event of a loss, the reasons will be shown so that any recurrence in the future may be prevented.

The cash basis of accounting is a very simple method of record, but it fails to give the proprietor the full information to which he is entitled. However the cash basis of accounting is often adopted together with a certain element of the accrual basis of accounting so that once or twice a year the accrual of all accounts is calculated.

When a trial balance has been taken off for the purpose of preparing a profit and loss statement, and the nominal accounts have been closed out to the profit and loss account, the account balances representing either assets, liabilities, capital, or special reserves appear upon the ledger. There are no nominal accounts or those which are known as profit and loss accounts, economic accounts, expense and income accounts. The net result is a statement of assets and liabilities or balance sheet.

REVIEW

Describe the trial balance. Why will it furnish a check upon the accuracy of the postings?

How does the trial balance aid in the preparation of financial statements?

Discuss the use of the six column working sheet.

What is the cash basis of accounting; the accrual basis? Which is the more exact?

CHAPTER XIII

ECONOMIC SUMMARY

1. *Drawing conclusions from the books.*—The twofold aim of accounting is to keep current records which show what the business owes others and what others owe it, and to show the results of the business as they are exhibited in an increase or a decrease of the capital investment.

In the aggregate these changes are indicated by a comparison of the assets and liabilities at the beginning of an accounting period with those at the end of it. Such a statement always leads to the determination of net capital, and it is clear that increase in net capital represents profit; decrease, loss. Under the single entry system of bookkeeping this is the only method available for determining the profit or the loss.

Under the double entry system of bookkeeping accounts are kept with the various elements which enter into profit or into loss, which are designated as economic accounts, and the grouping of all these accounts together constitutes the economic summary or the statement of profit and loss. Such a statement gives the various elements which constitute income and the various deductions from that income; while its net result is important the details are scarcely less significant.

There may be an element of perplexity in the frequent designation of the economic summary as a profit and loss statement. How can "profit and loss" be a statement showing the profit of a business? The phrase suggests that income is all profit, which would be the case if there were no expense; and that expense is all loss, which would only be true when there was no income. In any business expense (loss) is only incurred in the hope that it will lead to increased income or profit.

2. *Purpose of profit and loss statement.*—At the end of each fiscal or accounting period the management is anxious to determine as nearly as possible the profit resulting from the activity of the fiscal period which is just closing. A profit and loss statement recapitulates the business activities, and gives the information desired. The profit and loss statement should show how the advancement has been made or why losses have been incurred. If income has exceeded the expenses and losses, the effect is an increase in the proprietor's capital account. If, on the other hand, the business has incurred losses in excess of the income earned for the same period, there has been a reduction in the amount of capital investment. The effect upon the assets and the liabilities would in either case be shown by the statement of assets and liabilities prepared after the statement of profit and loss has been completed and the result determined.

A variation in the net worth will result from any of the following changes in the asset and liability accounts:

1. The asset accounts may have increased in value, the liability accounts may have decreased in value, thus resulting in an increase in the proprietor's capital account.
2. The asset accounts may have decreased in value and the liability accounts may have increased in value, thus indicating a loss in the proprietor's account.
3. Then, again, the asset accounts may have been decreased in value while the liability accounts may have been decreased to a greater extent than the assets, thus presenting an increase in the proprietor's capital account.
4. The liabilities may have increased in value but the assets may have increased to a greater extent than the liabilities, thus resulting in an increase in the capital of the proprietor.

3. *An accounting once a year.*—Some business men are satisfied to calculate their profits or losses at the end of each fiscal year. Others have felt that if they could determine their profits or their losses more frequently they would be in a better position to manage their affairs intelligently. Those who determine their profit or loss at the end of the year may overlook certain discrepancies which, if the profits were

calculated at more frequent intervals, would be apparent.

If the information obtained from the accounts is to be of value it must be timely. In a small business when the owner or manager can be thoroly familiar with all details, a monthly profit and loss statement may involve more work than the results warrant. On the other hand, in many larger concerns frequent summaries are a necessity.

A statement of profit and loss cannot be prepared unless one knows the value of the stock on hand not only at the end of the period but also at the beginning of the period. In order to secure these values it is necessary to take a physical inventory of all stocks of merchandise at regular intervals. Some establishments take an inventory every month, others every week, others only once or twice a year and some establishments take inventories every day. The character of the business indicates whether inventories should be taken daily or yearly.

4. *Use of perpetual inventory records.*—There are systems thru which the management can be constantly informed as to the value of the inventory, that is, the stock in trade; and these systems, if conducted properly, will be very helpful. No matter what system is used, slight discrepancies between the calculated figures and the actual value of the merchandise as determined by certain and positive count are bound to occur. The proprietor must decide for himself

whether a statement of profit and loss should be prepared monthly, every two months, quarterly, semiannually or annually. In any event, the inventory should be carefully counted at least twice a year and the value arrived at according to the physical count.

Some concerns have been developed so rapidly and to such a large extent that without frequent statements of profit and loss the management would not be aware of the fluctuations in inventories. The purchasing agent might be buying in order to prepare for enormous sales, but the sales department might not be able to secure the business and thus the inventory would be increasing at a rapid rate, tying up capital that could be employed for other purposes. The cost of merchandise sold can be found as follows:

To the inventory at the beginning of the period. .
Add purchases during the period. . . . .
  Total inventories and purchases. . . . .
Deduct inventory at the end of the period. . . . .
  Result—"Cost of the merchandise consumed" or
    "Cost of the merchandise sold.". . . . . . .

5. *Development of the modern income statement.* —Formerly at the end of his accounting period, a merchant prepared an account known as the profit and loss account, which showed as credits all items of income such as sales, interest earned, commissions earned, services sold, inventories at the end of period and so forth. On the debit side of the statement was shown the inventory at the beginning of the period,

purchases during the year, the various items of expense including rent, taxes, interest, salaries, freight, cartage, expressage, postage, stationery, and sundry items. The net result of the statement was an excess of credits over debits, or vice versa, and the result, carried to the capital account, increased it when profit was made, decreased it when there was a loss. Further analysis was desirable. When was the profit made? Why was loss incurred? Was an excessive profit on one order offset by a loss on another? Was the loss due to small sales or a high cost of doing business? None of these and similar questions were plainly answered.

6. *Inadequacy of the profit and loss account.*—Accountants began to realize that the profit and loss account was not an adequately prepared statement to submit to an administrative official. For this reason they began to plan a more detailed statement, one that would not only attract the attention of the proprietor, but that would assist him in his efforts to get a better grasp upon the activities of the business. The profit and loss statement was developed. This differs from the profit and loss account in that it is prepared in what is known as the report or narrative form. It will be recalled that an account exhibits upon the right hand side items of credit and upon the left hand side items of debit; profits on the right, losses on the left. The report starts with the gross amount of income obtained from sales, whether those sales be of merchandise or of services, according

to the business engaged in by the proprietor. All entries are found on one side of the report.

7. *Simple profit and loss statement.*—In order that the reader may the better grasp the principles involved in preparing a statement of profit and loss, a simple statement will be shown:

Sales for the period............		$20,000.00
Cost of merchandise sold		
Inventory January 1, 19—...	$ 5,000.00	
Purchases	17,000.00	
Total	$22,000.00	
Less inventory March 31, 19—...	6,000.00	
Total cost of merchandise sold...		16,000.00
Gross profits on sales......		$ 4,000.00
Expense and charges		
Office salaries	$ 900.00	
Office expenses	300.00	
Salesmen's salaries	400.00	
Light	20.00	
Rent	300.00	
Coal	35.00	
Sundry expenses	200.00	
Total expenses and charges.		2,155.00
Net profit for the period....		$1,845.00

The various features of income and expense are shown upon this statement, the sources of income or sales, the cost of merchandise sold and the various items of expense. This statement is a very simple one, prepared for a small business with few activities. In some instances a greater refinement of analysis in respect to the various expense accounts would appear in the statement. By comparison with a statement for the previous period, the proprietor could form some opinion as to whether his expenses were in normal relation to the sales or whether the amount of sales could be increased.

8. *Profit and loss statement.*—The report as employed is usually prepared on journal paper; the amounts are entered in the first column in detail and totals of various groups are extended to the second column where they were deducted from income from sales, or added to the indicated results as they are obtained. The first of these groups is the "cost of merchandise sold," in which is shown the increase or the decrease of merchandise inventory and the value of purchases made during the same period. This gives the cost of the goods sold which, deducted from sales, shows the gross profit on sales. This information is of value to the average man engaged in a mercantile business, but would be insufficient for the manufacturer.

A manufacturer is obliged to consider not only the profit on the purchases that go into the product, but he must consider also the element of labor expense, the factory expenses, light and power, inward freight and other expenses. He is also concerned in turning out a proper product and shipping to his customers the goods which he has manufactured.

9. *Manufacturing and trading account.*—The manufacturer is therefore interested even to a greater extent than the merchant in the refinement of the details shown upon the statement of profit and loss. To meet his needs the manufacturing and trading account was devised.

The classification in the manufacturing and trading account includes the gross income, the manufacturing or primary cost, the selling costs, the administrative costs, and other general charges. The manufacturing classification shows the cost of the merchandise purchased, the value of the inventory at the beginning of the period, the portion which was consumed during the period, the labor upon the material in manufacture, the depreciation in the factory, the rent of the factory and all other factory expenses.

The result would be carried to the second section of the account, known as the "trading account." The balance would indicate the cost of manufacturing the product and would be carried to the debit side, and against it the sales for the period would be entered as a credit. Added to the cost of manufacturing the merchandise would be the various charges and expenses incident to the selling of the product; that is, the traveling expenses of salesmen, the commissions earned by salesmen, advertising, salaries of the sales and advertising force and so forth. The net result of this section, presumably a profit, would be carried to the credit side of the next or third section, "administrative and general expenses." Against this credit would be charged upon the debit side the office salaries, the usual office expenses and various other administrative charges of conducting the business. Under some circumstances a fourth section might be introduced which would be known as a general section, and in this section would be charged all other items which were not included in one of the three sections described above. Such items would include factory insurance, interest charges, bad debts, depreciation, and so forth.

10. *The statement of income and profit and loss.*—Demand for further information led to the statement of income and profit and loss which shows the results of activities in a somewhat different manner. First and foremost the sheet is prepared in report form, as is the statement of profit and loss already briefly described.

The first item shown upon such a statement would be sales for the period. The value of allowances or returns is deducted to ascertain the net amount of sales. From net sales, according to section totals, the cost of the merchandise sold, the selling expenses, the administrative charges and other items are then subtracted. Included as income are such items as interest earned, commissions and any other income received from outside sources.

In the statement which follows the various sections have been separated by lines to bring out the divisions more clearly.

A CORPORATION

Statement of Income and Profit and Loss

For the Calendar and Fiscal Year ended December 31, 19—

Section one Income from operation			
Group A 1. Income from sales			
Gross sales		$750,000.00	
Less returns		725.75	
Net sales		$749,274.25	
Deductions from Sales			
Allowances	$623.50		
Outward freight and cartage.	2,672.25		
Total deductions		$ 3,295.75	
1. Net income from sales..........			$745,978.50
Group B 1. Cost of merchandise sold			
1A, Cost of merchandise consumed			
1A1, Purchases—Raw materials		$250,000.00	
Less—Returns		250.00	
Net purchases		$249,750.00	
Add—Inward freight and cartage	$6,722.25		
Receiving Dept. Salaries...	2,100.00		
Receiving Dept. Expenses..	625.75	$ 9,448.00	
1A1, Total cost of purchases.		$259,198.00	
Add—Any decrease in Inventory			
Deduct—Any increase in Inventory		10,000.00	
1A, Total cost of merchandise consumed		$249,198.00	
1B, Factory expenses			
Labor—direct		$150,721.70	
indirect		17,622.20	
Superintendence		4,500.00	
Foremen		3,750.00	
Clerk Hire—Factory.....		2,250.00	

Factory office expense.......	2,672.10	
Heat, Light and Power.......	3,562.76	
Factory supplies	437.24	
Repairs	3,672.75	
Depreciation of factory plant.	10,000.00	
1B, Total factory expenses.....		$199,188.75
1AB, Total manufacturing cost.		$448,386.75
1C, Inventory fluctuations		
Add—Decreased value of goods in process	$40,000.00	
Decreased value of finished goods	30,000.00	
Deduct—Increased value goods in process		
Increased value finished goods		
1C, Net inventory fluctuations..		$70,000.00
1ABC, Total cost of merchandise sold....................		$518,386.75
1 less. 1ABC GROSS PROFIT ON MERCHANDISE SALES..........		$227,591.75
Group C		
Selling expenses		
Advertising $20,000.00		
Salesmen's salaries..............20,000.00		
Commissions 12,000.00		
Sales Department—Traveling 6,862.25		
Total selling expense...........................		$58,862.25
SELLING PROFIT		$168,729.50
Group D		
Administrative expenses		
Office salaries	$20,250.00	
Executive salaries	30,000.00	
Sundry office expense...........	3,625.00	
Stationery and printing..........	1,876.24	
Telephone and Telegraph........	3,222.00	
Professional services	3,000.00	
Directors' services	1,850.00	
Total administrative expenses.........................		$63,823.24
INCOME FROM OPERATION		
Net profit on sales................................		$104,906.26
Section two		
Supplemental income and charges		

Group E		
Income from other sources		
Interest earned on bank balances	$1,262.73	
Cash discount on purchases	4,662.25	
Dividends received from stocks owned	250.00	
Total income from other sources		$6,174.98
INCOME FROM ALL SOURCES		$111,081.24
Group F		
Deductions from income		
Cash discount on sales	$6,270.24	
Interest on notes payable	750.00	
Taxes	4,162.50	
Insurance	13,674.50	
Total deductions from income		$24,857.24
Section three		
NET INCOME—Profit for the period		$86,224.00

11. *Analysis of the statement.*—It will be noted that the statement appears in three sections:

1. Income from operation
2. Income from other sources
3. The net income or profit for the period.

The groups under section 1 are A, B, C and D, which show information as follows: income from sales, cost of merchandise sold, selling expenses, and administrative expenses. The new result is known as income from operation, or net profit on sales. Under section 2 we have shown supplemental income and charges, that is, income from other sources, and we have deducted from the total income received from all sources, items which we have classed as deductions from income, the net result being section 3, the profit or the loss for the period.

12. *Cost of merchandise sold.*—The "cost of mer-

chandise sold" group includes not only the cost of the merchandise consumed but the cost of the labor, the cost of certain factory expenses, and the cost borne by the plant for estimated depreciation of factory equipment and factory plant. The resultant total of these three classes of costs equals the total manufacturing cost, but the total manufacturing cost is not necessarily the cost of the merchandise sold unless all the stock owned by the establishment during the year should be sold prior to the closing of the period. We should then consider before arriving at the total cost of merchandise sold the fluctuation in the inventory account of goods in process and finished goods. Upon reference to the statement it will be noted that the "goods in process" inventory has been decreased during the period by an amount of $40,000 and the finished goods inventory has been decreased by an amount of $30,000; the total decrease in the inventory amounting to $70,000.

It is quite obvious that if the total manufacturing cost, without giving consideration to the fluctuation in goods in process inventory and finished goods inventory, has amounted to $448,386.75, that a $70,000 decrease of the inventory mentioned would increase this figure to a total cost of merchandise sold amounting to $518,386.75.

13. *Selling expenses.*—Selling expenses are a class of expenses incurred for the purpose of introducing the merchandise to the buying public. These include not only the cost of advertising, the cost of salesmen's

salaries and commissions, and the traveling expenses which occur, but also a number of other items that might be directly connected with the sales of the merchandise. As a result after deducting the total selling expense we would have a selling profit of $168,729.50.

14. *Administrative expense.*—In order to carry on a business properly it has already been brought to the reader's attention that there are several functions, first, that of purchasing, second that of manufacturing, third that of selling, and fourth, administration. Group D, the fourth group of the statement of profit and loss, is designated "administrative expenses" and includes all costs of maintaining the office, of administering the office and of directing the business. After deducting the total administrative expenses for any period, we would arrive at a result which would represent a net profit on sales. Net profit on sales does not mean that there could not be some expenses charged against this profit.

15. *Other income.*—In nearly every line of business the proprietor is able to make some money or to obtain some income which is not directly connected with the particular line of business which he follows: for instance, he may carry a large deposit of money with a bank upon which he will receive interest from month to month. The fact that he has a bank account is not peculiar, but the fact that he has a sufficient amount of money in the bank account to draw interest is only a result of doing business upon a profitable basis and is not a result of carrying on any particular business.

The cash discount on purchases which he is able to take when paying his bills has its origin in the fact that he has a sufficient amount of capital or can borrow a sufficient amount of working capital in order to discount his bills when they become due. True, the discount in his particular line of business may be very large, but the fact that there are discounts is not attributable to the character of the business.

The management may also have been able or been obliged to invest money in stocks or bonds which have nothing to do with the conduct of the business. From month to month or year to year some income would be received from this investment, but such income would not be a part of the operation of the business. In fact, a sole owner could separate these investments from the business entirely, and he would not then consider them as a part of the business. Corporations, as a rule, are not obliged to invest their money in outside securities and when they do so it is merely for the purpose of placing in safekeeping a certain element of their surplus, but when it is done the records form a part of the corporation accounts.

16. *Deductions from income.*—There might be items such as the cash discounts taken by customers when paying their invoices, interest which the proprietor is obliged to pay on notes payable, the taxes which may be levied by the municipality or the state for the privilege extended of doing business, insurance which the proprietor pays in order to protect his establishment and the individuals working for him. All

these items would fall under the group "deductions from income."

The statement of profit and loss which has been described might have been even more extensive; but it is sufficiently detailed to show the reader the chief divisions and, as it stands, serves to bring the general plan of a complete statement of income and profit and loss.

17. *A summary statement of income and profit and loss.*—This statement could be condensed and shown in a much shorter form and yet possibly be quite as helpful to the executive managing the business. In many instances a shorter statement would be more helpful. A summary statement of income and profit and loss shown below with the totals only of the various sections is typical of these briefer statements. The net result of the main activities of the business is shown quite as clearly as on the former statement which gave greater detail. Each pertinent feature of the business is brought directly to the attention of the executive. No item in this statement is likely to be missed by the executive, as there are very few amounts shown and they can all be noted distinctly and separately from each other.

When a great amount of detail is shown upon one statement, the multiplicity of figures often confuses the reader, and thus defeats the purpose for which it was intended. The better practice is to furnish a shorter statement emphasizing only the important features and to support this statement with sundry schedules which exhibit all necessary and minute details.

Such a general statement follows:

A CORPORATION
STATEMENT OF INCOME AND PROFIT AND LOSS
For the Calendar and Fiscal Year ended December 31, 19—

Net income from sales	$745,978.50
Cost of merchandise sold	518,386.75
Gross profit on merchandise sales	$227,591.75
Selling expense	58,862.25
Selling profit	$168,729.50
Administrative expenses	63,823.24
Income from operation—net profit on sales	$104,906.26
Income from other sources	6,174.98
Income from all sources	$111,081.24
Deductions from income	24,857.24
Net income—profit for the period	$ 86,224.00

18. *Supporting schedules.*—The first statement submitted, with its details of profit and loss, gives material for the separate schedules. For instance, the income from sales group could be shown upon these separate statements, and under "income from sales" we should include as we did upon the first exhibit the following items:

SCHEDULE I. INCOME FROM SALES

Gross sales		$750,000.00	
Less returns		725.75	
Net sales		$749,274.25	
Allowances	$623.50		
Outward freight and cartage	2,672.25		
Total deductions		3,295.75	
Net income from sales			$745,978.50

It would appear that the $745,978.50, the income from sales, is really the information in which the proprietor would be most interested. The schedule supporting the "cost of merchandise consumed" could be shown separately, and added to the amount shown upon such a schedule the information as to factory expense could be shown and also the fluctuations in inventory; arriving at the total cost of merchandise sold. Thus the first two items shown upon the summary of income and profit and loss have been explained in detail, and we could proceed in like manner with "selling expenses," and "administrative expenses."

The first section of the profit and loss statement has now been explained upon separate schedules in detail. The proprietor has been able to see general results at a glance and, by scrutinizing the detailed statements, to understand just how these results have been brought about. He can proceed then to Section 2, "supplemental income and charges," and by reference to the detailed schedule supporting the main exhibit he could understand quite easily just what items have been included in the various sections. After going over the statement carefully an executive might pause to inquire, "What about depreciation?"

19. *Depreciation charges.*—Upon the exhibit submitted no depreciation has been charged. This has not been as a result of omitting the items in error, but to direct the attention of the reader to the fact that the costs or charges for depreciation are estimates only.

Even if it is positively known that the buildings or the assets in question have depreciated or fallen off in value, the amounts are charges against the "profit" for the period. That is, they are not a part of income, they are not in an exact sense a deduction from income, they are not part of the manufacturing expense unless the depreciation is estimated upon the actual machinery employed in manufacturing. For this reason a separate group is added under the second section of the profit and loss statement known as "profit and loss charges," and under this group all reserves for depreciation are included. For instance, a group might be introduced in the second section as follows:

Reserves for depreciation of furniture and fixtures	$825.00
Reserves for depreciation of machinery	1,175.00
Reserve for depreciation of building	2,000.00
Total reserves for depreciation	$4,000.00

The amount of $4,000 deducted from the $86,224, would give us as a result $82,224, the net income or profit and loss for the period after all charges had been made, not only for operation, selling expense, administrative expense, and deductions from income but also those charges which may be fictitious or at best only an estimate—the reserves for depreciation.

The capital or proprietorship of the enterprise at the beginning of the period would then have been increased during the fiscal and calendar year by an amount of $82,224 which would be shown upon the balance sheet as an addition to proprietorship.

REVIEW

How often should the profit and loss statements of a business be prepared?

What was shown in the old profit and loss account? Why was a further analysis of this account needed?

Into what sections is the profit and loss and income statement divided?

What goes to make up the cost of goods sold; selling expenses; administrative expense?

How is the selling profit determined; the net profit?

Why are reserves for depreciation not shown as part of the manufacturing cost?

What is a condensed statement of income, profit and loss? How may one secure detailed information when such a statement is provided?

CHAPTER XIV

THE BALANCE SHEET

1. *Balance sheet.*—A statement of financial condition showing the assets, liabilities, and capital of a concern may be prepared either in the form of a balance sheet, or in that of a statement of assets and liabilities. The balance sheet takes the form of a ledger account, which on the left shows debit items or assets, on the right credit items or liabilities, and proprietorship. It is compiled from the ledger accounts after the various income and expense accounts have been transferred to a summary account. The form of such an account is given below.

GENERAL BALANCE SHEET

Assets		Liabilities and Capital	
____________	$	____________	$ ....
____________	....	____________	....
____________	....	Total liabilities	$ ....
____________	....	____________	....
		Capital	$ ....
Total Assets....	$	Total Liabilities and Capital..	$ ....

2. *Statement of assets and liabilities.*—The statement of assets and liabilities differs from the balance sheet in that it is usually given in the report or nar-

rative form. The assets are first shown, and are followed by the liabilities and capital. Such a statement may be prepared from any data available, not necessarily from the books of account. A statement of assets and liabilities can, therefore, be prepared for a business whose records are kept on a single entry basis; the balance sheet would hardly be an appropriate designation.

Such statements of assets and liabilities may take various forms. The following is in frequent use.

STATEMENT OF ASSETS AND LIABILITIES

Assets		
________________	....	
________________	....	
________________	....	
Total Assets		....
Liabilities and Capital		....
		....
________________	....	
________________	....	
________________	....	
________________	....	
Total Liabilities		....
Proprietorship		
________________	....	
________________	....	
Total Proprietorship		
Total Liabilities and Proprietorship		....
		....

This is called the "Report Form."

Whether in report or account form the statement of financial condition will indicate the total investment in the business, the nature of the investment, the claims against the business and the net worth at a given time. This information may be variously arranged, according to the purpose for which it is prepared. In obtaining a short-time loan, the current assets will be shown prominently, while a balance sheet shown to a prospective investor in bonds usually gives the fixed assets the first position in the financial statement.

3. *The purpose and form of a statement.*—The financial condition, in a narrow sense, is shown by the capital account or the accounts which are included under the caption "Proprietorship" in a balance sheet. These accounts would include the capital stock issued, the surplus, the undivided profit, if any, and certain special reserves which might be offset by specific funds shown among the assets.

But the statement also exhibits the total value of the assets, and the total value of all liabilities which should be deducted from the assets, in order to ascertain the net capital of the enterprise. Assets should be divided according to certain specific classifications, the classification usually employed being as stated in Chapter III.

Current Assets
Working and Trading Assets
Fixed Assets
Deferred Charges to Expense

Liabilities would be classified as:

Current Liabilities
Fixed Liabilities
Special Liabilities (such as income received in advance)

There is also another class of liabilities, which is contingent upon the failure of some one else to make good at the time of maturity. This class would include the contingent liability on account of notes receivable discounted, which had not yet been paid by the maker of the note; but had been discounted by the proprietor.

4. *Grouping the assets.*—In preparing balance sheets the practice is to group the assets and liabilities in these general classes. By so doing a proprietor can compare current assets and current liabilities and thus get a better view of the possibilities of liquidating the various liabilities out of the current assets. He will be able to contrast as well the fixed assets and the fixed or capital liabilities. For instance, he will be able to compare the value of machinery and tools, furniture and fixtures, and buildings, with the amount of his indebtedness on the mortgage. He will be in a better position to compare the reserves which may have been created upon his books out of profits in one period to take care of the possibility of depreciation of the various fixed assets, with those of other periods.

5. *Information for the chief executive.*—The chief executive of a large enterprise will be primarily interested in the major problems of the establishment. The details of the various departments will not be brought to his attention unless some one particular feature has contributed largely to the progress or decline of the business. Records of the detail operations of

the various departments are of special use for the guidance of department heads and other deputies who are charged with the administration of specific branches of the work. As they look after the details, only the summaries need be presented to the proprietor.

For this reason oftentimes a brief statement of assets and liabilities is submitted to provide a quick and comprehensive view of the financial condition of the business at a certain moment of time. If all details are carried out by the proper deputies and the balance sheet shows a healthy condition of the establishment, the proprietor may assume that his business is being conducted along efficient lines. Occasionally, possibly three or four times a year, the proprietor of a large establishment might care to make a complete analytical survey with his deputies. In fact, regular weekly meetings of the staff are held in many concerns and the heads of the departments acquaint the chief executive with the various phases of their work.

6. *Supporting schedules of assets and liabilities.*—The brief statement described above which is often submitted for examination is usually accompanied by complete schedules which set forth the classified assets and liabilities. As in the case of a statement of profit and loss, the various supplementary schedules explain in detail the items shown in the condensed statement.

These schedules furnished at the end of a fiscal period, showing the assets in groups and liabilities in groups, together with schedules of proprietorship and reserves are most valuable if submitted in connection with a general balance sheet. Therefore modern practice cuts down the balance sheet at the end of the fiscal period to a very general statement of the financial condition of the enterprise, supporting this with such detailed statements as may be necessary.

A CORPORATION

Balance Sheet as of January 1, 19—

Assets		Liabilities and Proprietorship	
Current Assets		Current Liabilities	
Cash in Hand	$300.00	Accounts Payable	$40,000.00
Cash on Deposit	27,600.00	Notes Payable	50,000.00
Special Fund	350.00	Interest Accrued	375.00
Accounts Receivable	122,575.27	Salaries and wages Accrued	2,762.25
Notes Receivable	8,000.00		
Total Current Assets	$158,825.27	Total Current Liabilities	$93,137.25
Working and Trading Assets			
Raw Material	$127,000.00	Notes Receivable Discounted	$7,250.00
Goods in Process	40,150.00	Mortgage Payable	18,000.00
Finished Goods	32,727.73		
Total Working and Trading Assets	$199,877.73	Total Liabilities	$118,387.25
		Proprietorship	
Stocks Owned	$5,000.00		
		Reserves for Depreciation	
Fixed Assets		Furniture and Fixtures	$885.00
Furniture and Fixtures	$2,950.00	Machinery and Tools	5,625.00
Machinery and Tools	$18,750.00	Buildings	5,750.00
Buildings	35,000.00		
Real Estate	17,250.00	Total Reserves	$12,260.00
Total Fixed Assets	$73,950.00		
Deferred Charges to Expense		Capital Stock Outstanding	$175,000.00
Value of Fire Insurance Premiums	1,222.12	Surplus	137,438.87
Advertising-Prepayments	3,000.00		
Special Services	1,211.00	Total Proprietorship	$324,698.87

Total Deferred Charges to Expense	$5,433.12		
Total Assets	$443,086.12	Total Liabilities and Proprietorship	$443,086.12

A CORPORATION

Condensed Balance Sheet

January 1, 19—

Assets		
Current Assets	$158,825.27	
Working and Trading Assets	199,877.73	
Stocks owned	5,000.00	
Fixed Assets	73,950.00	
Other Assets	5,433.12	
Total Assets		$443,086.12
Liabilities and Proprietorship		
Current Liabilities	$ 93,137.25	
Contingent Liabilities	7,250.00	
Mortgage Payable	18,000.00	
Total Liabilities	$118,387.25	
Proprietorship	324,698.87	
Total Liabilities and Proprietorship		$443,086.12

7. *The modern form of balance sheet.*—The modern form of balance sheet consists of a statement showing in groups: current assets, working and trading assets, fixed assets, securities owned, deferred charges to expense, total assets. Upon the right hand side or the liability side of the balance sheet, as it is called, are the current liabilities, the contingent liabilities, the fixed liabilities, and the total liabilities. The difference between the total assets and the total liabilities is shown as the proprietorship, thus, the larger part of the statement is taken up with the assets and liabili-

ties, and the smaller part with the proprietorship information.

The balance sheet herewith shown exhibits the nature of the various assets, tho it does not show just where the bank accounts are located, what customers owe the business, or to whom money is due. It shows in a general way each kind of asset and liability and these are classified in suitable groups. The total assets of this business amount to $443,086.12 and the total liabilities to $118,387.25. The difference between these two amounts is the proprietorship of $324,698.87, which is made up of three reserves for depreciation, the authorized and issued capital stock, and the surplus.

It will be recognized that this surplus may have been accumulated over a period of years or during one year. In this case the amount is probably an accumulation.

8. *Condensed general balance sheet.*—The condensed form of statement shown above exhibits only the assets according to classes, the liabilities according to classes, and the proprietorship in one amount. While such a statement lacks details, yet if this information is presented from day to day or from month to month and at the end of each quarter or semi-annual period not only this statement but others as well, showing all the assets and all the liabilities and proprietorship, the set would present carefully prepared and complete information of the progress of a business. In order to support the statement properly, separate schedules should be sub-

mitted which in many ways would appear similar to those shown upon the balance sheet already exhibited in this chapter. The schedules might, however, go into a greater refinement of detail. For instance, a schedule could be shown of cash as follows:

Cash in hand—office	$ 300.00
Cash with Battery Park National Bank	3,600.00
Cash with First National Bank	22,000.00
Cash with New York County National Bank	2,000.00
Total	$27,900.00
Special Fund with Traveling Salesmen	350.00
Total Cash	$28,250.00

Accounts receivable and Notes receivable might then follow in like detail under the general caption—Current Assets.

9. *Sundry supporting schedulcs.*—Other schedules could be furnished, as a Schedule of Working and Trading Assets with greater detail than would be shown upon a regular balance sheet. First, the goods in process item of $40,150.00 could be divided in three or four classes. For instance, there might be goods in process in the factory, goods in process in the foundry and goods in process in a finishing department. Finished goods would also be divided into several classes, that is, there might be one class known as hardware, another as wood ware, and still another class termed metal ware. In fact, an establishment might be manufacturing two lines of products entirely different; such as wooden furniture, and bicycles or steel

wagons. The schedule of working and trading assets would indicate the value of each class. Then, too, an establishment having a number of branches would require separate schedules of assets distributed among these branches.

The group of assets termed Machinery and Tools could also be subdivided. That is, a schedule of the value of buildings might exhibit the value of the main building and in detail the various additions that may have been made, and each classified according to a number, such as extension No. 1, extension No. 2, and so forth.

Deferred charges to expense might include not only the detail of the three items, fire insurance premiums, advertising and special services, but it might show the number of the fire insurance policies upon which the premium value had been calculated, the names of the magazines or periodicals to which the advertising prepayments had been made, the kind of other special service paid for and from whom it is expected.

In fact, the refinement of detail shown upon separate and underlying schedules can be extended almost indefinitely, and once a year, at least, it will be of special interest to the management to study carefully these details with a view of increasing the size of the plant if necessary or properly to maintain it in the condition as shown.

REVIEW

How are the assets and liabilities usually classified and arranged?

Would a balance sheet showing on one side current assets, working and trading assets, and fixed assets, and on the other fixed liabilities, contingent liabilities, and current liabilities, in the order named, be well arranged? If so, why, and if not, why not?

Of what value are schedules showing in great detail the make-up of the items on the balance sheet?

CHAPTER XV

SINGLE ENTRY BOOKKEEPING

1. *General aspect.*—Single entry bookkeeping represents a not uncommon but rudimentary form of accounting records. Reference has from time to time been made to certain of its characteristics in the course of this discussion. No attempt has been made till now to present it as a system and appraise its merits and defects. It was felt that such a systematic consideration of the subject might well be deferred till there had been a presentation of the more complete accounting records to which double entry bookkeeping gives rise.

Under a single entry system of bookkeeping, which has sometimes been called a simple system of bookkeeping, accounts are as a rule kept with persons only. The reason for this is that such transactions are ordinarily not completed at the time the original entry is made.

2. *Books employed in single entry.*—The usual books kept in single entry records are the day book, or journal, the cash book and the ledger. The former two are books of original entry; the latter a book of subsequent entry.

(a) Cash book. The cash book records receipts and disbursements of cash. Two forms are in use.

In one all receipts are recorded on the left hand pages, all disbursements on the right hand pages. If such a book is ruled with two columns on each page, the first column can often be used for details, the total for each transaction being carried to the second column. In another form of the cash book, transactions are entered in chronological order and the distinction between receipts and disbursements is indicated merely by placing the receipts in the first column and the disbursements in the second. This form of cash book is probably the most frequently used in this system. It is commended by its simplicity and by its economy of space.

(b) The day book. The day book takes the place of the journal in double entry bookkeeping and has, therefore, frequently been spoken of as a journal. It is ruled with the familiar two columns; the first column is sometimes used for the details of a single transaction and the second column for the totals. The form of the usual entry is as follows:

January, 19—

January	1	Sold Frank Smith for credit	
		4 bbls. potatoes at $4.00..........	$16.00
	2	Sold Frank James	
		6 bbls. potatoes at $4.25........	25.50

(c) The ledger. The ledger employed under the single entry method is the same in form as in the double entry method. Accounts are divided in the center, debits are posted to the left and credits are posted to the right in the same manner as in the double entry method. However, no attempt is made to show the double effect of each transaction.

It follows that the debits and credits of the accounts do not, as in double entry, equal each other. A list of the balances of such a ledger shows the amounts due from the customers to the proprietor, the amounts due by the proprietor to his customers and the amount in the capital account of the proprietor, that is his net worth at the beginning of each period. It is obvious that such a list is not a trial balance in the sense that it proves or disproves the equilibrium of debits and credits as was the case in the use of the trial balance under the double entry system.

3. *Expanding the ledger accounts.*—In some instances certain accounts are kept in the ledger to record expenses and the value of assets other than cash and personal accounts, but this is not the usual case. When such accounts are kept they are in the nature of memoranda.

One of the accounts which frequently finds its way into the single entry ledger is the merchandise account. This account is debited for all merchandise purchases and credited for all sales. Similar in character is the expense account in which all expenses are debited. It can be readily seen that thru the entry of such accounts the system takes a step towards double entry, but goes only a little way. Only a few of the entries are recorded in both their debit and credit aspects.

An objection often urged against the single entry system is the difficulty of proving the work. It is impossible, of course, to take a trial balance as we understand that term in double entry bookkeeping. But there is nothing to prevent proving of the posting, which is most conveniently done by checking back the items from the ledger to the original entry in the journal or cash book. If the ledger and journal only have been used and if the transactions in the journal have been classified at the time of entry as between debit and credit, the total of all the entries in the debit column of the journal and the total of all the amounts in the credit column of the journal must equal the total of all the debit and credit items respectively posted in the ledger accounts for the period. In most cases however it will be a waste of time to attempt to prove the accuracy of the posting in single entry by the method of proving totals.

4. *Inadequacy of the single entry method.*—Since the single entry ledger accounts do not maintain an equilibrium of debit and credit and do not lend themselves to the preparation of a trial balance, a statement of profit and loss cannot be made from them. Of course, in the various books of the system all transactions have been recorded, and it would be possible by an analysis of all the transactions to prepare a profit and loss statement. It is clear, therefore, that to classify thus all accounts and transactions on separate sheets or in another book would amount to a rewriting of the books. If this is to be undertaken at the end of each period it would, of

course, be better to have the books arranged definitely at the beginning.

Under the double entry system, the proprietor can without great difficulty ascertain the amount of his profit or the extent of his loss during any given period. He reaches this conclusion from the trial balance, the income and loss statement and the balance sheet, as has already been explained. These statements serve as checks upon one another. Under the single entry system the account of profit is ascertained by comparing the value of the net worth at the end of the period with its value at the beginning of the same period, the difference between the two indicating profit or loss.

5. *Determining profits.*—If a proprietor finds that at the end of a period he has in his possession assets such as merchandise, cash and plant which are in excess of all his liabilities at the same moment of time, he has capital. If the amount of this capital should be $15,000 and he knows that at the beginning of the period the amount of capital determined in the same manner was $5,000, then his profit for the period must have been $10,000. This amount may not represent profit, however. The proprietor may have introduced fresh capital into his business during the year, or on the other hand he may have drawn from the business a certain salary or he may have withdrawn money to employ it for a purpose not represented by the assets of the business.

Some proprietors claim that the amount of money which they draw from the business represents a salary for which they should be credited since it would cost them a similar amount of money to employ some one to manage their affairs for them. In this case they establish a stipulated salary which is charged against the business as an expense. But if a proprietor should draw from a business which makes a profit of only $8,000 an amount of $10,000, a comparison of his net worth at the beginning and the end of the period would indicate that he had fallen behind $2,000. A full statement of his affairs would require another schedule showing that the decrease in the net worth was $2,000 but that he had drawn $10,000, therefore he had actually made $8,000 during the year.

6. *The financial statement.*—Under the single entry method the proprietor who has been careful to introduce into his books an account for each asset and liability can prepare a statement of financial condition from the ledger accounts alone. This statement gives him his net worth at the time of preparing his statement, but he must compare it with a similar statement prepared at some earlier date, for instance, at the beginning of the period which he is reviewing, in order to determine his profit or loss. This conclusion is, of course, subject to qualification as above noted in case he has withdrawn money from the business during the period.

Below is given a statement of financial condition, exhibiting, first, the name of each asset, and the value as determined by the proprietor and extending to the right the total value of all assets. Beneath the assets are shown the liabilities in detail. The total amount of liabilities is extended to the second column. There has been shown in the first column the difference between assets and liabilities. The result represents capital, or net worth at the end of the period amounting to $19,628.75. In the second column the capital at the beginning of the period has been added to the liabilities at the end of the period, arriving at an amount of $20,659.25. By subtracting this from the total assets as at the end of the period we arrive at an increase in capital of $4,628. This $4,628 need not mean, however, that the proprietor has made a profit during the year, for he may have introduced additional capital far in excess of this amount. The condition in these circumstances would show a loss from operations. However, upon inspecting the statement further it will be noted that the proprietor did not introduce additional capital during the period, but he did draw during the period $2,340. The amount of the withdrawals should be added to the net increase in capital in order to arrive at the net profit for the period. By adding the net increase in capital of $4,628, and the drawing during the period of $2,340, we arrive at a net profit for the period of $6,968.

STATEMENT OF FINANCIAL CONDITION
AND PROFIT AND LOSS

Condition at the End of the Year—Profit for the Year

Assets	
Cash	$ 2,000.00
Accounts Receivable	5.225.22

Merchandise Stock	7,674.78	
Furniture	225.25	
Real Estate	10,162.00	
Total Assets	$25,287.25	$25,287.25
Liabilities		
Accounts Payable	$ 3,008.50	
Notes Payable	2,650.00	
Total Liabilities	$ 5,658.50	$ 5,658.50
Capital End of Period—Net Worth	$19,628.75	
Capital Beginning of the Year	15,000.75	15,000.75
Total Liabilities Plus Capital		$20,659.25
Increase in Capital	$ 4,628.00	$ 4,628.00
Deduct Additional Investment		NONE
		$4,628.00
Add Drawings During the Year		$ 2,340.00
Net Profit for the Year		$ 6,968.00

It will be noted that in the first column beneath the amount shown as the capital at the end of the period has been shown the capital at the beginning of the period, the net difference being the $4,628 as already mentioned.

7. *Comparison of the capital at the beginning of a period with that at the end of the period on the single entry basis.*—In order to illustrate this point further let us examine this schedule which exhibits the condition of a business at the end of the period. In parallel columns numbered 1, 2, 3, and 4, respectively, some possible conditions as at the beginning of the same year are set forth. In example 1 the assets have been increased during the year by $4,628, while in example 2 the liabilities were decreased by $4,628.

CONDITION AT THE END OF THE YEAR—COMPARISON WITH POSSIBLE CONDITION AT BEGINNING OF YEAR

	End of the Year	Possible Condition Beginning of year	Possible Condition Beginning of year	Possible Condition Beginning of year	Possible Condition Beginning of year
Assets					
Cash	$ 2,000.00	$ 3,000.00	$ 3,562.75	$ 5,000.00	$ 4,620.75
Accounts Receivable	5,225.22	2,372.00	3,600.50	6,762.75	3,220.00
Merchandise Stock	7,674.78	4,900.00	7,736.75	10,752.75	5,034.75
Furniture	225.25	225.25	225.25	225.25	225.25
Real Estate	10,162.00	10,162.00	10,162.00	10.162.00	10,162.00
Total Assets	$25,287.25	$20,659.25	$25,287.25	$32,902.75	$23,262.75
Liabilities					
Accounts Payable	$ 3,008.50	$ 3,158.50	$ 6,286.50	$10,402.00	$ 3,262.00
Notes Payable	2,650.00	2,500.00	4,000.00	7,500.00	5,000.00
Total Liabilities	$ 5,658.50	$ 5,658.50	$10,286.50	$17,902.00	$ 8,262.00
Capital Investment	$19,628.75	$15,000.75	$15,000.75	$15,000.75	$15,000.75

Thus capital was increased—as

		1	2	3	4
No. 1. Assets were increased		$4,628.00			
No. 2. Liabilities were decreased			$4,628.00		
No. 3. Both Assets and				$ 7,615.50	
Liabilities were decreased				12,243.50	$2,024.50
					2,603.50
Excess of Liability Decrease				$ 4,628.00	$4,628.00
No. 4. Assets were increased					
Liabilities were decreased					

In 3 it was not because of a simple increase in assets or a decrease in liabilities that the capital had increased, but because the decrease in liabilities was greater than the decrease in assets. Again in the fourth illustration the assets increased while the liabilities were decreased, and the increase in the assets plus the decrease in the liabilities equals the increase in the capital during the period.

8. *Comparison of single entry and double entry methods.*—The cash book under the single entry method is employed in much the same manner as the cash book under the double entry method. Receipts are entered in one column or upon one page and disbursements in another column or upon another page. It makes little difference whether all the receipts are in one column and a parallel column on the same page employed for entering disbursements or whether all the receipts are entered upon the left hand page and all the disbursements entered upon the right hand page.

In the journal entries, however, there is a great difference between the two systems, especially in the manner of posting the entries made in these books. Entries in the single entry day book are posted to only one side of an account in the ledger, that is, the sale of merchandise to a customer is charged to the customer's account, but as a rule there is no credit made to a sales account for the same amount.

With this one-sided posting the single entry ledger has no equilibrium of debit and credit, and moreover it usually lacks the record of many assets for which accounts are provided in double entry bookkeeping. As a matter of memorandum, accounts with cash, furniture and fixtures, real estate, value of the merchandise inventory, etc., sometimes appear in single entry ledgers. Oftentimes they are placed in the ledgers at the end of the accounting period in order to assist the proprietor in making a summary of his various assets and liabilities and in determining his net worth.

9. *Converting single entry into double entry.*—The exhibit shown in section six of this chapter as an example of single entry bookkeeping can be used to demonstrate how the books could be transferred to a double entry basis of bookkeeping. The method would be as follows: The assumption will be made that upon the ledger in question accounts are shown with customers, with creditors and with cash. It will be necessary then to erect upon the ledger or to calculate the value of the merchandise stock to determine the value of the real estate and that of the furniture and fixtures. It is also necessary to determine all liabilities which are not shown upon the ledger. We will assume that notes payable is the only liability which is not shown upon the ledger account. A journal entry could then be prepared as follows:

January 2, 19—

Cash ....(Debit)	$ 2,000.00
Accounts Receivable	5,225.22
Merchandise Stock	7,674.78
Furniture	225.25
Real Estate	10,162.00

Accounts Payable.....(Credit)	$ 3,008.50
Notes Payable	2,650.00
John Smith, Capital............	19,628.75

EXPLANATION: This entry has been made for the purpose of converting books of John Smith from the single entry method of keeping accounts to the double entry method. The accounts represented in the entry above have been opened in a new ledger purchased for the purpose and the ledger has now been established with an equilibrium of accounts and the journal entry exhibited above is a trial balance of the ledger.

This is in effect an opening entry such as has already been described.

REVIEW

What books of account are used under the single entry system?

How are the results of the period's activities determined under this system? Is this method accurate?

What are the chief objections to the single entry system?

Explain the method of converting a set of books from the single to the double entry basis. Why is an entirely new set of books desirable?

CHAPTER XVI

CONTINENTAL SYSTEM OF BOOKKEEPING

1. *Description and method of procedure.*—In some countries of continental Europe, the law requires that all transactions of a concern regularly engaged in business shall be entered in the journal. There is also a provision in certain other countries, that at the end of the fiscal period, the ledger shall be closed, not to be reopened until after the stockholders have accepted the final balance sheet at the annual meeting.

These provisions require special methods in the operation of the books and it may prove profitable to spend time in considering them.

In modern practice, both in Great Britain and America, the general journal which was formerly the only book of original entry, has been broken up into sections with the result that we have today a large number of classified journals which are used as posting media while the use of the general journal is confined to opening and closing entries and adjustment entries.

Under the continental system, however, the necessity of passing all entries thru the general journal gives to that book a special importance which it does not now occupy in practice elsewhere, because not only will the records of all business transactions be found in it, but in addition thereto, each entry will be followed by a complete and detailed explanation so that the entry will furnish the entire history of the transaction without reference to any other supporting data.

The form of the journal as well as the methods of making entries therein under this system are different from the practice in the United States, as will be seen from the specimen entries made in the form following.

JOURNAL

	January 1, 19—			
	Sundries to Opening Balance	20		$5400.00
1	Cash		$1000.00	
3	Merchandise inventory		3000.00	
5	Machinery and equipment		1400.00	
	——1——			
20	Opening Balance to Sundries			54.00.00
	Thomas Porter	7	1200.00	
	John Doe, capital account	9	4200.00	
	——3——			
7	Thomas Porter to Cash being the payment of the amount due to him	1		1400.00
	——8——			
21	Salary of salesmen to Cash for salary for the week ended today	1		25.00

2. *Opening entries.*—When the books are opened at the commencement of business the individual asset accounts are charged and the opening balance account is credited therewith. The liabilities and capital at the beginning of business are placed upon the ledger thru a journal entry, debiting opening balance ac-

count and crediting the individual liability and capital accounts.

It will be noted that the operation of the journal is somewhat different from our practice in that the outside money column is used for both debit and credit entries, while the inner monetary column is employed for the entry of details.

The date of the entry is placed in the center of the space reserved for narration. The ledger folio for debits is at the left of the space reserved for narration while the folio reference for credit postings is placed at the right. All subsequent transactions are entered in the journal in the manner illustrated above.

3. *Closing entries.*—At the close of the fiscal period, the nominal accounts are transferred to the profit and loss account in the usual manner. After the net profit or loss for the period has been distributed, the asset account as well as the liability and capital accounts are transferred by journal entries to a closing balance account. Thus it will be seen that after these entries have been made, the ledger will be actually closed and no open balance will remain in any of the accounts.

It will also be noted, that if the items are entered in the closing balance account in detail, the account becomes, as a matter of fact, the balance sheet of the firm at the end of the fiscal period. The use of the closing balance account is one of the principal points of difference between this system and the use of the double entry system elsewhere. In Great Britain and in America the assets and liabilities remaining open at the end of the fiscal year are balanced off and the balances brought down into the new account at the beginning of the new period.

4. *Reopening the ledger.*—In order to reopen the ledger at the beginning of the new business period under the continental system, it is necessary to employ again the opening balance account.

The asset accounts are opened by debiting the individual asset accounts and crediting the opening balance account therewith. The liability and capital accounts are again placed upon the ledger by debiting opening balance account and crediting the individual liability and capital accounts in the same manner as that described above for the opening of the books at the beginning of business.

If the postings are made in detail to the opening balance account it will be noted that the liabilities will appear in the opening balance account on the left and the assets on the right-hand side of the account. This is the form of balance sheet employed in Great Britain.

Thus the form of balance sheet used in Great Britain is the opening balance account under the continental system, while the form of balance sheet used in America and the rest of the business world is the closing balance account under the continental system.

In order that the closing of the books under this method may be more clearly seen, attention is called to the following journal entries and ledger accounts illustrating the closing of a set of books under the continental system:

JOURNAL ENTRIES AND LEDGER ACCOUNTS

JOURNAL

	December 30, 19—			
19	Closing Balance to Sundries			$7,275.00
	Cash	1	$2,000.00	
	Merchandise inventory	3	2,500.00	
	Machinery and equipment	5	1,400.00	
	D. Slade	11	475.00	
	J. Marshall	12	200.00	
	F. Winans	13	700.00	
	to transfer the asset accounts to the closing balance account.			
	Sundries to Closing Balance Account	19		7,275.00
14	M. Harrison		230.00	
15	E. Wilson		1,045.00	
9	John Doe, Capital Account		6,000.00	
	to transfer the liability and capital accounts to the closing balance account.			

	January 1, 19—			
	Sundries to Opening Balance	20		7,275.00
1	Cash		$2,000.00	
3	Merchandise inventory		2,500.00	
5	Machinery and equipment		1,400.00	
11	D. Slade		475.00	
12	J. Marshall		200.00	
13	F. Winans		700.00	
	to re-open the ledger			
20	Opening Balance to Sundries			7,275.00
	M. Harrison	14	230.00	
	E. Wilson	15	1,045.00	
	John Doe, Capital Account,	9	6,000.00	
	to re-open the ledger.			

5. *Advantages of the continental system.*—It is evident that the necessity of passing all entries thru the journal provides a means of checking errors in a

CLOSING BALANCE

1916					1916				
Dec. 30	To	Cash	J. 10	$2,000.00	Dec. 30	By	M. Harrison	J. 10	$ 230.00
		Merchandise inventory	J. 10	2,500.00			E. Wilson	J. 10	1,045.00
		Machinery & equipment	J. 10	1,400.00			J. Doe, Capital	J. 10	6,000.00
		D. Slade	J. 10	475.00					
		J. Marshall	J. 10	200.00					
		F. Winans	J. 10	700.00					
				$7,275.00					$7,275.00

OPENING BALANCE

1917					1917				
Jan. 1	To	M. Harrison	J. 10	$ 230.00	Jan. 1	By	Cash	J. 10	$2,000.00
		E. Wilson	J. 10	1,045.00			Merchandise	J. 10	2,500.00
		J. Doe, capital	J. 10	6,000.00			Mach. & equipment	J. 10	1,400.00
							D. Slade	J. 10	475.00
							J. Marshall	J. 10	200.00
							F. Winans	J. 10	700.00
				$7,275.00					$7,275.00

trial balance since no entry can come into a ledger account unless from the journal. Therefore, a trial balance of the ledger accounts showing the total debits and total credits in each ledger account must agree with the aggregate total of the journal pages. If, therefore, at the end of any period the footings of either the debit or credit columns of a trial balance do not agree with the footings of the journal, the amount of the difference or differences and the side of the trial balance on which they occur, can be determined.

If, for example, an entry in the journal has not been posted or has been posted erroneously, it will usually be a comparatively easy matter to locate the difference. Moreover, entries cannot be made in a ledger account without detection, because if any are so made, the totals of the trial balance will not agree with the journal total unless, of course, the totals of either the journal or the trial balance items have been forced. Another advantage lies in having all of the transactions of a business reflected in detail in one book.

The journal, therefore, becomes the most important book and under this system is the one to which the executive will most frequently refer.

6. *Disadvantages of the continental system.*—Among the disadvantages of this system may be mentioned:

The use of one book as the sole posting medium in a large business does not permit that decentralization of work which is necessary in order to obtain the results of operation immediately at the end of the period, because the entries in the journal must be made in considerable detail, and furthermore the work of posting is delayed while the closing entries and the adjusting entries are being entered in the sole posting medium.

The fact that the transactions of the period are entered in such minute detail in the book of original entry, offers the temptation to omit necessary details in the narration columns of the ledger account.

There does not seem to be any considerable advantage gained from the use of the opening and closing balance accounts and the labor involved in closing the books only to reopen them again is a waste of energy.

7. *Summarizing columnar books before posting the totals.*—The continental system precludes the use of time saving and labor saving devices such as, for example, direct posting to the ledger accounts from the footings of the columns of classified journals and the direct posting from the tickets or loose-leaf records which modern practice quite generally employs. It is not uncommon in practice to find some of the principles of the continental system employed in this country.

For example, the footings of the columns in a purchase journal are sometimes journalized for posting purposes in the general journal and the same is true of other classified journals.

Where this practice is followed, the purchase journal and sales journal and other classified journals become practically memorandum books and, of course, are not posting mediums.

There may be certain conditions under which this practice of journalizing the footings of the columns in classified journals may be a wise one to adopt.

As an illustration, the purchase journal with a large number of distribution columns provides a fruitful source of possible errors because of the tendency to overlook one column in posting.

It is also possible that in the hurry of closing, the journal clerk may have neglected to prove the cross footings.

If, however, the totals of the various columns are journalized for posting purposes in the general journal, the opportunity for errors is reduced; frequently the totals of the distribution columns are journalized in the classified journals and posted from this summary.

8. *Localizing errors versus time saving.*—The most important advantages of this system are the localization of error and the prevention of cross-ledger entries which may cover mistakes or perhaps fraud, but the loss of time and the extra work are, on the other hand, grave disadvantages and it would seem that nothing is to be gained by adopting this system, especially where an adequate system of internal check is employed.

It may be said, however, that the continental system is theoretically more correct than our modern practice because under the theory of double entry no amount should be placed in a ledger account unless the same has been posted from a book of original entry; at the end of a fiscal period, when the balances remaining in the asset and liability accounts are brought down in the new account without a preliminary record of the transaction in a journal, we violate theoretical principles.

REVIEW

How is the journal used in the continental system of bookkeeping?

What are the chief advantages of this method; the disadvantages?

Explain the method of opening and closing the ledger under this sytsem.

Why is the continental system theoretically more correct than that of Americna practice?

CHAPTER XVII

DEPRECIATION

1. *Need of providing for depreciation.*—There are two classes of assets upon which depreciation can usually be calculated. These classes are those representing fixed assets and those representing circulating assets. The fixed assets have already been defined as those assets which represent a portion of the capital invested in permanent or nearly permanent investments. Circulating assets are represented by an investment of capital in assets which are changing in value, sometimes fluctuating upward, sometimes downward. The supply and demand of certain classes of circulating assets will affect their value from time to time.

Depreciation may be defined as that part of the original outlay of capital in fixed or circulating assets which has disappeared, either thru wear and tear, lapse of time or obsolescence. All matter is undergoing a change; some things disintegrate slowly, others rapidly; some things depreciate according to the supply and the demand. Obsolescence is as important a factor in the valuation of assets as deterioration or depreciation.

Since depreciation of a concern's assets is reflected in the surplus account, the determination of the proper amount of depreciation has an important bearing upon the net worth of the concern. Depreciation also has an important bearing on the question of annual profits, because if the depreciation of assets is not made good thru earnings or income, it must be made good out of capital. This offset may not be apparent until the management requires the rehabilitation of the assets which may have depreciated.

When depreciation has occurred but has not been provided for, any surplus profits distributed in the form of dividends are to that extent an impairment of capital. True earnings have been overstated; and this overstatement may have an important bearing on the concern's future. Provision for depreciation from its very nature implies the idea of maintaining the original value of the concern's property.

Unfortunately this important feature is very often a matter of estimate and oftentimes becomes mere guesswork when there is no proper basis for calculation. Ordinarily all that is definitely known about an asset is the cost. Its life, that is the period during which it can be employed in producing a profit, its productive capacity, and its residual value at the expiration of a specific period are more or less questions of estimate.

2. *Charging against profits.*—When a business man has purchased a building and real estate and has installed in the building a number of fixtures such as machinery, tools, hardware, lighting fixtures, to be

used directly or indirectly in the production of goods, it will be necessary for him to allow for a certain element of wear and tear in the future. The assets which he has purchased wear away, and this wearing away process goes on even tho machines are idle. In fact, some machines depreciate or waste away more rapidly when they are not being used than when they are being used and kept in order.

The element of waste or wearing away upon the machines and other assets is, as already mentioned, a matter of estimate. The proprietor may decide that a machine will be employed satisfactorily over a period of, say, ten years. We might then assume that each year one-tenth of the asset wastes away and that this proportion of value of the asset should be charged against profit and loss. Inasmuch as we have merely formed an opinion as to the amount of waste of the particular asset it would not be advisable to write down the value of the asset. If we had paid \$1,000 for a portion of the equipment and we considered that \$100 of the \$1,000 value had worn away, it would not be right to credit the account of \$1,000 with an amount of \$100, thereby reducing the account to \$900. It may well be that the asset is worth only \$900, but then again it may last for a longer period than at first anticipated. For this reason an account "reserve for depreciation of equipment" should be set up. The journal entry will be:

Profit and Loss.....................	\$100.00	
Reserve for Depreciation of Equipment		\$100.00

Explanation: The reserve created on the basis of ten years' use of apparatus number ...., located on floor 5, department F.

This element of depreciation becomes a charge against profit and the net profit for the period less the element of depreciation set aside in the reserve account would be the net amount of profit which could be properly distributed in dividends, special salaries, and so forth, or carried directly to the surplus. The balance sheet of an institution shows the result of the profit earned during the period and the profit and loss statement affects the capital as shown upon the balance sheet. Therefore depreciation charges will affect profits and likewise will affect the capital of the institution as shown upon the statement of assets and liabilities.

3. *Direct effect upon invested capital.*—A proprietor may start out at the beginning of a fiscal year with a capital of $15,000. During the past he has erected no reserve accounts upon the ledger and there are no other accounts that represent capital, that is, net capital investment. During the year in question he charges against the profit and loss account an amount representing deterioration of fixed assets, and credits to the reserve accounts the same amount. This reduces the profits for the period, but increases reserves or rather establishes reserve accounts. The amounts shown in these reserve accounts will act as an offset to the value of the assets as shown upon the balance sheet. Let us suppose that the total value

of a plant and equipment is $100,000 and the estimated allowance for depreciation is $10,000. This amount can be written off from the value of the asset, which would then appear as $90,000. This is the English method. It shows the estimated value of the asset and has the merit of bringing forcibly to the attention of the management the changes in net value wrought by depreciation. However since the amount set aside represents not the actual wearing away of the asset but an estimate of this loss it may be preferable to show these reserves on the liability side of the balance sheet, as restricted portions of the capital appropriated to a specific use. In either case the total net worth will be the same.

4. *Are reserves for depreciation a portion of the invested capital?*—Reserves for depreciation which are only estimates, may be considered a portion of the invested capital of a proprietor. All that the proprietor has done has been to take from the amount of profit which he believes he can employ for the declaration of dividends or for personal requirements, the amount of profit which he believes necessary to rehabilitate some asset when that asset has deteriorated or become obsolete.

It would seem to be obvious that an asset is part of a proprietor's invested capital until the asset is nil and valueless. Irrespective of whether or not he sets up a reserve for depreciation account to take care of depreciation, the value of this asset will be a part of the proprietor's invested capital until the asset becomes valueless and cannot be used. As long as it can be used it will form a portion of the proprietor's invested capital, that is, the difference between the value of all assets as shown upon the proprietor's books and the value of all liabilities will be the net invested capital of the proprietor whether he chooses to consider the amount of that invested capital as a capital account or whether he chooses to call it reserve for depreciation, capital account and surplus.

5. *The kind of assets upon which depreciation can be considered.*—We should draw a sharp line of demarcation between fixed and circulating assets. The former are the capital goods or assets, which are used in producing other goods or other assets which are to be sold. The latter are from the point of view of the concern the consumable goods or the working and trading assets, which are consumed by the concern in producing its salable products. In the one case the assets have a life of usefulness extending over a long period. In the other the assets can be easily realized upon and are intended to be used within a short period of time in producing the articles which are sold by the concern. Circulating assets are sometimes called working and trading assets and represent those materials which are kept in the warerooms of the company and from time to time are employed in the definite preparation of the product which is sold.

6. *Depreciation on fixed assets.*—In the valuation of fixed assets no attention need be paid to the market price of these assets, whether high or low, whether in

excess of the depreciated value or whether less than the depreciated value, because these assets are not for sale. No profit can be realized or loss sustained on them so long as they are employed by the business in producing other assets. Fixed assets depreciate, however, thru wear and tear and thru obsolescence. The changes due to wear and tear may not be evident from year to year and therefore are not noticed at the time of making up the annual statement; depreciation goes on slowly but surely and, if not taken into account, may ultimately leave the concern with a book asset representing a piece of junk.

Machinery and appliances that have been installed for several years may, to all appearances, be just as serviceable as they were when first purchased. When this situation obtains, objections may be raised by business managers when the accountant attempts to provide for depreciation. This procedure, they say, makes inroads on their profits in order to provide for theoretical losses. They argue that all repairs and renewals have been taken care of during the year, that the current price of the machinery is as high or higher than when the plant under consideration was purchased; that perhaps it could not be duplicated for anywhere near the original cost, therefore, why depreciate?

The argument often seems logical and so it would be, if disintegration were not a law of nature. All fixed assets, even those classed as permanent improvements, suffer a steady and irresistible depreciation.

Repairs, of course, prolong the period of usefulness, but they cannot prevent the ultimate depreciation. It is poor policy to ignore this fact until the time comes to dispense with the asset and then be obliged to charge off the entire value against the profits of one period. Such procedure results in an excessive showing of profits in one or more periods at the expense of another period later on. Moreover a concern is sometimes embarrassed when obliged to charge off the entire cost of an asset at one time. The fact that the asset was used up indicates that it was helping to make profits during its life and it is proper that all periods should bear their share of depreciation.

7. *Current or circulating assets and depreciation.*—Some authorities state that inventories, that is, working and trading assets, should be valued at the cost or market value. They contend that they should be valued at the market value if this is less than the cost, and at the cost if the market value is higher than the cost. This suggestion seems to be conservative in that it protects the proprietor from considering as an element of profit that which is merely an element of market fluctuation. If a proprietor should consider the market fluctuation of inventories and the market should increase rapidly, even tho no sales are made during the period a "paper profit" would appear on the books. For instance, a proprietor realizing that the price of a certain commodity was going to rise might lay in a large store of this article, in anticipation of this increase. His books would

show that he had purchased for $50,000 a certain quantity of this particular asset. During the next month or so the value of this material may have increased according to the market quotation to $65,000. During the same period, however, there may have been little or no sale of this merchandise. If the proprietor should, as the market had gone in his favor, write up the book value of the account and credit profit and loss, the procedure in such a case would be neither logical nor conservative.

Consider the situation under contrary conditions. The merchant has purchased a quantity of merchandise for $50,000 and during the succeeding two months the market falls off to such an extent that his merchandise upon market quotations would be worth only $35,000. Apparently the proprietor has sustained a loss of $15,000. A conservative business man would be very cautious against overstatement of the value of his assets at this particular period and he would be protected absolutely from any misrepresentation, if he charged profit and loss account and credited the reserve for depreciation on inventory account in the amount of $15,000.

8. *Actual losses versus opinion.*—Now if the proprietor had actually incurred a loss of $15,000 upon the merchandise that loss would have been the result of having made sales below cost. During the period of two months, however, we assume that the proprietor made no sale of this particular article. Has he lost any money upon this merchandise?

If he could hold the merchandise for another month, or possibly for six months, it might return to the former value and in fact it might go above the former value. There are some particular lines of merchandise which prior to the war were apparently so low in value that many merchants actually went out of business, thinking that they could never redeem their finances. After the outbreak of the war in Europe, the price of these goods increased in such a ratio that many merchants in the same line of business made enormous profits—profits so large that the Government saw fit to tax certain industries as against others.

For most cases the following general rule may be laid down. Temporary advances in the prices of materials may be ignored. In the case in question, the inventory should have been valued at cost price and a reserve set aside to cover the anticipated depreciation, or rather the depreciation which at the time seemed to have occurred. This course would not interfere with the true showing of profits from operation. The merchant would have adjusted the surplus account so as to prevent an overstatement of profits available for dividends and if the market recovered or if prices of finished goods should not reflect the change in prices of raw materials, the reserves created could be transferred to the surplus.

There is one important exception to the general practice recommended above. This is in cases where goods on hand include those subject to changes in style. The depreciation or obsolescence on the latter class should be charged to profit and loss.

9. *Writing down an asset.*—Some accountants believe in showing the assets upon the books in their respective accounts, giving the cost value and then crediting to these accounts from year to year, according to the fiscal periods, a certain per cent of the depreciation. That is, if an account represents an outlay of $20,000 for land and buildings at the beginning of the year, it may be assumed that during the year the value of the buildings has depreciated a sufficient amount to decrease the asset by 10 per cent. The account "land and buildings" might then be credited with an amount equal to 10 per cent of $20,000 which is $2,000, thus reducing the debit balance of the amount to $18,000.

This practice is hardly correct, because the land would undoubtedly have some value at the end of ten years even tho the buildings should be worthless. Nor would it at the end of the first year be a correct calculation to consider that the land and buildings were worth only $18,000 when one year previously they had cost exactly $20,000. A better practice would have been to have debited profit and loss and instead of crediting the account representing the cost of the land and buildings to have credited the account Reserve for Depreciation of Land and Buildings for the amount of $2,000. At the end of the second year this process would be repeated, increasing the reserve account to $4,000. While the asset account would continue to show the cost value of $20,000, the depreciation on the building would have been provided for by the reserve.

10. *Failure to provide.*—Some proprietors carry on business for years without considering it necessary to set up a reserve for depreciation upon fixed assets or upon current assets. Their argument is that they have been keeping fixed assets in constant and proper repair and that this has cost them a considerable amount of money. The argument defeats its purpose, for if it has cost a large amount of money to keep the assets in repair from the time of acquirement, it is quite obvious that it will cost them a considerably larger amount to keep the assets in repair during the future, because of obsolescence or deterioration.

The proper procedure is to provide upon the books an account to which will be applied a reasonable amount for present depreciation in value and to continue to add to this for a number of years until the full value of the asset has been written off or until a large proportion of the value of the asset has been credited to a reserve account.

If this is not done a building might suddenly become practically useless altho it might still be shown in the accounts at its original cost value. Even repairs cannot keep the building in proper shape indefinitely. If the proprietor had erected the building at a cost of $20,000 and had occupied it we shall say, for eight years, without establishing any account representing depreciation or making any corresponding charge against profit and loss, the asset account "building" would appear as $20,000 upon his books at the end of eight years. He may have, during this period, accumulated a surplus of $25,000. In this interval the cost of erecting a building may have increased, but certainly an expenditure of at least $20,000 will be required now to erect a building as large as the one built eight years before.

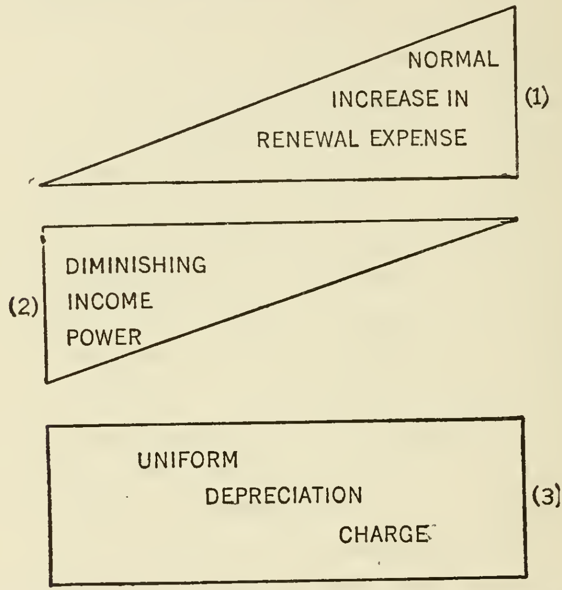
But the business is growing, making money, and a building adequate for present needs would cost more than the one which was suitable eight years ago. If the proprietor uses $20,000 in building and withdraws it from his surplus he reduces the surplus to $5,000 and curtails working capital. If he borrows the money he adds a liability which would add an interest charge to his expenses.

11. *Dangers of depreciation.*—Admitting the necessity of allowing for depreciation, the next step is to determine the basis or bases to be used, so as to distribute the depreciation over the life of the object and thus completely to extinguish its value at the time it becomes useless. We have three factors on which to work—the cost of the asset, its life and its residual or scrap value at the expiration of its life. It is to be regretted that the first factor is the only definitely known quantity, the other two being speculative. An important factor affecting the life and residual value of an asset is obsolescence, perhaps the most important

single element in determining depreciation. In certain lines of industry invention is very active. Some machines, even the best of their type, are useless after two or three years' service because of new inventions and improved methods.

It requires courage to scrap almost new machinery, but it is said that not the smallest element in the success of Andrew Carnegie was his willingness to discard equipment for the sake of installing newer and better types of machines. This factor must be given consideration and the life of the asset adjusted with regard to the question of obsolescence. The term of usefulness of machinery varies from three to twenty years. If invention is especially active in connection with the equipment of a particular line of business, it will be necessary to allow for a very short life for such equipment. Any accounting policy which ignores this factor is radically wrong.

During the early part of the life of a machine, the charges for repairs and renewals are comparatively small, while on the other hand, the machine is usually capable of producing a greater income. Obsolescence begins to operate almost as soon as the machine is purchased, as pointed out above. It is also true that as the life of the machine increases, the renewals and replacements become more costly. It would seem reasonable, therefore, that the depreciation should be accumulated at a more rapid rate during the early years of the asset, when its productivity is greatest, in order that in the later years, when renewal charges are higher, the depreciation charges may be lower. The situation can be illustrated by a diagram:



(1) Represents the normal increase in renewal expense; (2) represents the diminishing income power of the machine and consequently the normal diminishing ratio of depreciation charge. If these two elements are properly combined in determining the normal rate to be charged each year, the result will be a uniform charge against the income account of each year, covering both depreciation and repairs and renewals, as shown in diagram (3). There are six methods of calculating depreciation generally accepted and applied in practice: (1) Fixed percentage

method; (2) weighted years method; (3) declining balance—unscientific; (4) declining balance—scientific; (5) sinking fund; (6) revaluation method. The advantages and disadvantages of these methods will be set forth in the following chapter.

REVIEW

Upon what reasoning is the theory of depreciation based? What assets are affected by depreciation?

Why will repairs and renewals not do away with the need of providing for depreciation?

What are the journal entries made in setting up a reserve for depreciation?

Are inventories to be valued at cost or market price? Why?

What are the various methods of calculating depreciation?

CHAPTER XVIII

METHODS OF COMPUTING DEPRECIATION

1. *Fixed percentage method.*—Under this method, the life of the asset is estimated as well as its residual or scrap value at the end of the normal expectancy of life. The difference between the cost of the asset and its junk value is the amount of depreciation that is to be written off during the period. This depreciation is written off on a basis of a fixed percentage each year so that at the end of the last year, the junk value alone remains. Take, for example, a machine costing $1,200, which is expected to be useful for ten years, after which period it will be worth $200 for junk. A formula for arriving at the depreciation is the following:

$$D = \frac{V - R}{N}$$

in which D is the annual amount of depreciation; V, the cost or original value; R, the residual value; and N, the number of years of life. Applying this formula to the facts given above, we obtain

$$D = \frac{1200 - 200}{10} = \$100,$$

which is the fixed amount to be written off for depreciation each year. This is the method most commonly used. It has three advantages: (1) simplicity; (2) ease of application; and (3) a uniform annual charge. Its disadvantage lies in the fact that since the cost of repairs and renewals may be expected to increase as the machine grows older, the combined charges to profit and loss for depreciation and for repairs and renewals increase during the later years. Thus, in the years that the machine is producing less, the charges to profit and loss are increased, robbing the later years for the benefit of the earlier. It is evident that, taking repairs and renewals into account, the combined loss is not equitably distributed over a period of years.

The fixed percentage method lends itself readily to a correction of the depreciation rate, by basing the new rate on the productivity of the plant. Eliminating the question of obsolescence, a plant working at 50 per cent capacity does not suffer as heavy depreciation as a plant working at 100 per cent capacity. Therefore the rate can be easily adjusted to such conditions if desired.

2. *Fractional method or weighted years method.*—The basis of this method is to divide the total shrinkage in the asset by the sum of all the numbers representing the years of its life and then to depreciate each year on the basis of a fraction having the number of years to run as a numerator and the sum of the year-numbers as a denominator. Take for example an asset with a life of 50 years. The first step is to find

the total of the numbers from 1 to 50 inclusive. A simple formula for this calculation is as follows:

$$S = N \frac{(a + z)}{2}$$

in which S is the desired sum of the series of years; N, the number of separate years in the period; a, the first year; and z, the last year. Applying this formula to our problem, we obtain:

$$S = 50 \frac{(1 + 50)}{2} = \frac{50\ (51)}{2} = \frac{2550}{2} = 1275$$

or the total of the sum of the years from 1 to 50 inclusive. Therefore, the amount of depreciation in the first year would be 50/1275ths of the total shrinkage; in the next year, 49/1275ths; and so on.

Suppose that we have a building which cost $55,000; the expected life of which is 50 years with a residual value of $4,000 at the end of the period. The amount of depreciation to be written off is $51,000. During the first year the depreciation will be 50/1275ths of $51,000 or $2,000; the next year's depreciation will be $1960, and so on. This method meets the objections against the flat rate with reference to the increasing cost of repairs and renewals. It is simple and easy to calculate altho not so simple as the flat rate. It should be noted that if additions or deductions are made to the asset account the calculations may be entirely useless; that is to say, the addition to a building, for example, must have the same life as the original asset, or else a separate calculation, based upon the cost of the addition, would be required in order to arrive at the current depreciation charge.

3. *Declining balance method—unscientific.*—This method is somewhat similar to the flat method, except that the annual depreciation is calculated at a uniform rate on the previously depreciated value. Assume, for example, a machine with a cost value of $1,000, an estimated life of 5 years, a residual value of $100 and a declining balance rate of 20 per cent, the total depreciation being $900. If we depreciate on a basis of 20 per cent the result will be as follows:

Ledger value at Jan. 1, 1914	$1,000.00
Less depreciation at 20%	200.00
Ledger value at Jan. 1, 1915	800.00
Less depreciation at 20%	160.00
Ledger value at Jan. 1, 1916	640.00
Less depreciation at 20%	128.00
Ledger value at Jan. 1, 1917	512.00
Less depreciation at 20%	102.40
Ledger value at Jan. 1, 1918	409.60
Less depreciation at 20%	81.92
Ledger value at Jan. 1, 1919	327.68

It will be noted that the asset at its ledger value on this basis at the end of 5 years appears to be $327.68 whereas the assumption was that the residual value would be $100. Therefore, in the last year instead of an amount of $81.92 it would be necessary to write off $309.60 to reduce the residual value to only $100.

The distinct advantage of this method is its simplicity. The large amount of depreciation to be written off in the last year is a serious disadvantage.

To overcome this objection, there is another method which works along the same principle but with different results, known as the declining balance method —scientific.

4. *Declining balance method—scientific.*—The problem here is to establish the rate when the cost, the scrap value, and the number of years are given. A steady percentage on successive annual valuations is desired that will reduce the asset to its scrap value. The formula for arriving at this result is obtained as follows:

Let c = the cost;
s = the scrap value;
p = the percentage which each new valuation bears to the last one; and
n = the number of years of life.

Then $s = cp^n$. In other words, the scrap value is equal to the product of the cost times the percentage taken as many times as a factor as there are years of life.

The establishment of the rate of percentage ordinarily necessitates the use of logarithms. As an illustration of how the formula may be applied, we give the following example:

Assumed facts: original value of asset, $2,000; residual value of asset, $200; life, 5 years. Required, the percentage. The formula then becomes:

$$200 = 2{,}000 \text{ times } p^5$$

From this we have, $p^5 = .1$

By logarithms, $\log p^5 = \log .1 = 1$

$$5 \log p = 1$$
$$\log p = 1.8$$

From logarithmic tables, p =.63096, or 63.096%

The difference between the above percentage (63.096 per cent) and 100 per cent gives 36.904 per cent as the rate to be used in order to find the annual depreciation on the declining balance method. The following table will show the reduction in ledger values in the case of the example above cited:

Ledger value at Jan. 1, 1914	$2,000.00
Depreciation at 36.904%	738.08
Ledger value at Jan. 1, 1915	1,261.92
Depreciation at 36.904%	465.70
Ledger value at Jan. 1, 1916	796.22
Depreciation at 36.904%	293.84
Ledger value at Jan. 1, 1917	502.38
Depreciation at 36.904%	185.40
Ledger value at Jan. 1, 1918	316.98
Depreciation at 36.904%	116.98
Ledger value at Jan. 1, 1919	200.00

It will be noted that this method would be ideal in many respects if it were not for the fact that the calculation by which the percentage is obtained is somewhat complicated. Theoretically, this method cannot be used where no residual value remains, as we can never arrive at a value of zero by deducting a constant percentage from successive decreasing values. That there is a great deal of merit in the contention that the depreciation charge should be in inverse ratio to the normal expected cost of maintenance will be admitted. The fractional method explained above arrives at the same general result and since the computation of depreciation is more or less arbitrary, it may be the better method for the layman to adopt. It certainly has more merit in it under most circumstances than have either the scientific declining balance method or fixed percentage method outlined above.

5. *Sinking fund method.*—This is one of the favored methods of calculating depreciation altho it necessitates the use of complicated calculations; the values however may be arrived at in published tables. Under this method an equal amount is written off annually; compound interest is allowed, however, on the amount written off. These annual amounts, together with the interest, must equal the total amount of depreciation of the life of the asset. It does not necessarily follow that the amount must be actually set aside in money, altho if this is not done the annual charge to income account for the depreciation is increased by reason of the interest added each year; this would give rise to a temptation on the part of the concern to reduce the amount set aside in later years as the charge becomes increasingly burdensome. If the fund is invested and interest earned on the fund, the method works out satisfactorily, but there is the further objection that the money, if allowed to remain in the business, would earn more than the usual investment rates. Another objection urged against the annuity method is that the accumulations are smaller in the earlier years than the actual depreciation; this

necessarily results in overstating property values during the greater part of the term. The basic principle underlying this method is the assumption that the charge made to cost of production or to income should include not only depreciation but also interest on the investment in the asset; therefore under this theory the amount written off yearly includes also the interest charges on the decreasing value of the asset. Assuming the rate of interest to be 6 per cent, the value of the asset as $1,200, and the residual value as $200.00, the method would work out as follows:

Ledger value at Jan. 1, 1914—cost....	$1,200.00
Add interest at 6%..................	72.00
	$1,272.00
Deduct depreciation	249.40
Ledger value at Jan. 1, 1915.........	1,022.60
Add interest at 6%................	61.36
	1,083.96
Deduct depreciation	249.40
Ledger value at Jan. 1, 1916.........	834.56
Add interest at 6%..................	50.08
	884.64
Deduct depreciation	249.40
Ledger value at Jan. 1, 1917........	635.24
Add interest at 6%	38.12
	673.36
Deduct depreciation	249.40

Ledger value at Jan. 1, 1918..........	423.96
Add interest at 6%	25.44
	449.40
Deduct depreciation	249.40
Ledger value at Jan. 1, 1919—residual value	200.00

In connection with this method the following question arises: Why should interest be calculated in this part of a concern's investment and not on other classes that do not happen to require depreciation?

6. *Re-valuation method.*—This method consists in re-valuing all the physical assets and charging the difference between such value and the book value to depreciation account. With certain classes of assets it is the only way—for example, the depreciation on horses should be arrived at by this method. In this connection, however, the appraiser is bound to be more or less influenced by the prevailing market prices, and this will result in an unusual fluctuation not consistent with sound policy.

7. *Recapitulation.*—We have given the various methods that are accepted in practice for determining the amount of depreciation. None has been in force long enough to justify a definite statement as to which is the best. Undoubtedly some application of the declining balance principle is to be preferred. It must be remembered that all methods are subject to change. Experience alone can determine whether or

not the method employed is the correct one and appraisals should be made at frequent intervals to verify the results of the past charges for depreciation. All concerns should adopt a conservative policy by making ample provision for depreciation in prosperous years, in order that they may maintain the minimum in the lean years. The practice of making ample provision in prosperous years is a source of future strength, especially in a period of business depression.

8. *Determination of rate.*—In the determination of a rate for depreciation, the manager or the accountant must use his own judgment supported by his knowledge of local conditions. While depreciation tables serve as a guide, authorities in different parts of the country differ as to the rate of depreciation on specific assets. Take, for example, the life of steam boilers; in the Southwest, where there are deleterious substances in the feed water, the life of a boiler is shorter than in New England where boilers have been known to give good service for 30 years.

9. *Buildings.*—The depreciation on land and buildings should be limited to the structure; land is not usually depreciated, altho its value may fluctuate. The rate of depreciation on buildings will depend upon the kind of material, upon the use to which the buildings are put, and upon the climate. Fireproof buildings of modern construction depreciate from 1 to 2 per cent annually. Frame structures depreciate from 3 to 5 per cent annually on the declining balance.

10. *Machinery, furniture and fixtures, etc.*—It is

more difficult to estimate the depreciation on machinery than on buildings because of the many factors determining its life. Dicksee gives the following rates, which are merely suggestive:

Asset	Annual Rate of Depreciation on decreasing balance
Engines	10 to 12½%
Boilers	12½ to 20%
Shafting	5 to 7½%
General Machinery	7½ to 10%
Special Machinery	10 to 25%
Patterns	25 to 33⅓%

Mr. George M. Craven has compiled a table of depreciation rates that has been adopted by various industrial concerns and commissions sitting in rate cases; this table was published in the *Electrical Review* under date of April 23, 1910. It will give the reader an idea of the variability of opinion on certain of the items:

Asset	Annual Rate of Depreciation
Boilers	3.5 to 10%
Steam Piping	3.5 to 10%
Auxiliaries	5 to 10%
Steam Engines	3 to 6.6%
Steam Turbines	5 to 9%
Belted Generators	3.3 to 10%
Wires and Cables	2 to 6.6%
Switchboards, etc	2 to 10%
Motors	4 to 10%
Storage Batteries	5 to 11%
Shop Equipment	3 to 15%

The annual rate on furniture and fixtures varies from 10 to 25 per cent. The rate of 12½ per cent is frequently adopted. Banking houses are accustomed to write down the value of fixtures very heavily.

Wagons, trucks and automobiles should be depreciated from 8 to 10 per cent annually and a rate of 20 per cent is not unusual in practice. Automobiles depreciate rapidly, and a rate of 33⅓ per cent is not uncommon. It is estimated that taxicabs in New York City have a life of 2 years.

11. *Intangible assets.*—Such assets as good-will, patents, copyrights and trademarks must be written off according to the peculiar circumstances surrounding each case. For example, some authorities affirm that good-will should not be depreciated if the profits are maintained in the accustomed ratio. This view is generally held by English accountants. That the policy is not conservative will be admitted on reflection; for if good-will is not depreciated during those years when profits have been maintained, how will it be possible to depreciate it in the years when profits fall off and when, according to this theory of valuation, the good-will does depreciate and ought to be written off? Nevertheless there is very good authority supporting the doctrine that good-will should not be written off and the only thing that may be said is that conservative practice calls for the writing down of good-will over a period of years.

Patents should be depreciated according to the number of years that they are expected to be of value. As a general rule the value of this asset should be rapidly written off; yet there are certain cases where, by virtue of a patent monopoly, the owner has established a valuable good-will which may last for many years after the expiration of the life of the patent. Conservative practice requires the writing down of the asset during its legal life. Copyrights and trade-marks have a longer legal life than patents; their asset value depends almost exclusively upon their income producing power which in most cases can be quite accurately determined.

12. *Relation of depreciation to sinking fund reserves.*—Some bond issues provide that a certain portion of the profits of a company shall be withheld from year to year and credited to a sinking fund reserve. In some cases, the corresponding fund is placed under the control of a trustee who invests and preserves the fund in order to liquidate the indebtedness at maturity. Sometimes the bonds are bought at a fixed or market price as soon as money is available. In any event, the creation of a sinking fund reserve withholds from the stockholders during the period a portion of the profits as an additional protection to the bondholders. If a reserve for depreciation of the assets securing the bonds is also created, the income account is charged twice for the same purpose; first, for the sinking fund reserve, which has as its purpose the preservation of the fixed property thru the withholding of profits and their ultimate re-investment in plant; and second, for the depreciation reserve, which has as its

object the preservation of fixed property values out of profits. Therefore while there is no direct relation between the two reserves, it usually happens that the sinking fund reserve is the larger of the two; this might not be true where bonds have a long term to run but would be true on short term issues. Inasmuch as the two reserves are built up for the same purpose, it will be seen that if the sinking fund reserve is adequate to meet the needs of depreciation, both reserves should not be created as, by so doing, a double charge to income would result. Where the sinking fund reserve is not adequate, the depreciation reserve should be so adjusted as to make both reserves adequate for the depreciation requirements of the company.

13. *Depreciation of wasting assets.*—Our discussion thus far has been on those assets of a permanent character used in production. We have other classes of assets known as wasting assets, such as mines. It is evident that as each ton of coal is taken from a coal mine, there is corresponding reduction in the value of the property in which the capital of the mining company has been invested; it will also be readily seen that upon sale each ton will be sold at a price which is composed of a portion of the capital of the company and an element of profit. Strictly speaking, a reserve for depletion should be created out of the proceeds of each ton sold, in order to provide a fund from which to return to stockholders their investment when the mine cannot be profitably worked. In coal mines, a competent geologist can tell the approximate recov-

ery, and the calculation of a rate for depletion therefore becomes a comparatively simple matter. In practice, however, mining companies rarely provide a reserve for depletion and the dividends paid are part capital and part profit from operation. As long as stockholders are aware of this fact and know that they are taking their chances, the practice perhaps may be permitted or not unduly criticised. Nevertheless, owing to the danger that is always present where the layman with his small knowledge of accounts makes investments in stocks of mining companies, it would seem desirable to adopt in all companies the practice of providing a reserve for depletion of wasting assets. Such reserves are usually computed on the basis of the tonnage mined. The same general conclusions apply to oil fields, gold mines, clay deposits and other natural wealth.

REVIEW

Describe the fixed percentage method of calculating depreciation; the declining balance method (scientific).

What are the advantages of the sinking fund method?

What method would you employ in calculating depreciation on (a) furniture and fixtures; (b) patents; (c) a coal mine?

What is a fair annual rate on shop equipment; patterns?

CHAPTER XIX

LABOR SAVING DEVICES

1. *Planning the bookkeeping methods.*—The planning of the accounting work includes the initial effort and the preparation of rules of instructions and application. It is the function of the bookkeeping department of an enterprise to carry on the work so planned. It is a part of good planning to provide all the equipment which may be required.

The bookkeepers carry on their work from day to day, entering in one book a record of the cash receipts, in another book a record of the cash disbursed, in the sales book the detailed record of the sales to various customers, in the purchase journal the record of the invoices received from creditors, and keeping other records. The stores department must keep a record of fluctuations in the quantities of merchandise carried in stock. The purchasing department records are needed to assist the purchasing agent or purchase manager in securing the kind of merchandise required by the establishment for manufacturing purposes or for re-sale. In order that these respective departments may be able to carry out their activities properly and prepare intelligent reports for the executive department, the best means for securing the end must be decided upon before the department engages in its activities, and from time to time as improvements may be devised, they must be introduced in order to secure the maximum results with a minimum amount of effort.

Business moves rapidly, competition just as rapidly, and for this reason each unit of an enterprise must be organized along well considered and intelligent lines, so that efficiency will be at a maximum continuously, not occasionally. For this reason the mechanics of bookkeeping and accounting must be decided upon well in advance.

2. *Mechanics of bookkeeping.*—The mechanics of bookkeeping concerns the introduction of the proper kind of books, forms and reports for preparation in the accounting and bookkeeping departments. It concerns also the introduction of any mechanical devices which can be expediently used in the particular enterprise under review. Many machines are now in use which simplify the work of the accounting department and result in increased efficiency.

The mechanic who works upon the construction of a bridge or a dwelling works at a disadvantage unless he is equipped with the best kind of tools for producing the results that may be required of him. Transportation companies have introduced many devices for the protection of their patrons and their employes from injury as well as for the promotion of rapid travel. Department stores are continually seeking to introduce ideas in their organizations that will promote the general satisfaction in the minds of their patrons so that the good-will of the establishment will be maintained indefinitely.

It seems none the less important that the manager introduce similar methods into the office and the accounting department in order that the office may be able to keep stride with the rest of the organization. If one department of an organization is less efficient than another, it retards the progress of the better organized portion of the business. All departments should be maintained at the greatest degree of efficiency. Inasmuch as the bookkeeping office and accounting office are practically the pulse or barometer of the business, this department especially should be keyed up to a maximum in order to produce the best and most satisfactory results.

3. *Establishing the processes of accounting.*—The idea is widely prevalent among laymen and among a great many business men that the accounting department is the last one to consider from the standpoint of improved and time saving methods. This idea is fast losing ground. Competition has forced managers to introduce in their bookkeeping and accounting departments methods for reporting the activities of the business in an intelligent manner. There are a number of elements to be considered by the business man in constructing his office organization in such a manner that it will most intelligently report the activities of the organization. The coworkers must have a very broad view of the entire

enterprise. The men planning the business or planning the organization of the accounting department must understand each and every phase of the business activities in order to report intelligently the activities of the respective departments.

The departments of the business should be so allied that they can cooperate but at the same time they should be so distinctly separate that they can carry on their respective activities without conflict or without having the functions of one department overlap those of another. This feature of an enterprise is also important to the accounting department in order that means of reporting the distinct activities thruout the establishment may be established.

4. *Information required.*—The accounting department will require information from every other department of the organization in order to compile not only statistical data but accounting data and references. In order to secure the information, plans must be made so that the data furnished to this department may come in a steady flow, from day to day if possible, and from week to week. Delay in furnishing this information will hold up the work, and as the accounting department is really a clearing house for the organization records, such delay may retard other department activities and impair the general efficiency of the establishment.

After the accounts have been arranged in such a manner that they can be employed for recording information that will be required for tabulating or for the preparation of statistics for the executives, it is time for the bookkeeping department to lay out the books which will be employed in keeping the accounts. These books will include not only ledgers but books of original entry. It would be necessary, for example, to decide at the beginning whether the ledgers and the necessary books of original entry shall be of the loose leaf type or of the bound type, whether cards should be introduced, or whether special forms can be used.

When the books and accounts of an organization have been planned, a certain definite method of posting the information shown in the books and records of original entry to the books of final entry, should be fixed. Shall this posting be made daily, weekly, hourly or monthly? If made daily, at what time in the day should the postings be made and how and from what original records? If made weekly or monthly, when shall we take time to post the activities of the interval and from what records and from what forms?

Mechanical devices and aids are being introduced rapidly, possibly as rapidly as business in general is progressing. These take the form of adding machines, subtracting machines, calculating machines, typewriting machines, typewriting adders, bookkeeping machines, and so forth. When can they be profitably used? The various questions of planning and labor saving may now be considered.

5. *The organization.*—In organizing the account-

ing system the accountant should look carefully into the personnel of the establishment and study the departments required to carry out the activities of the business and report them. There will undoubtedly be a sales department and a purchasing department, and in manufacturing institutions there will be a manufacturing department. The function of the accounting department will be to collate information from the various other departments, and present it to the executives who control the business. The correlation of these departments, not omitting their physical location in respect to each other in the plant or office building, is very important and should be given careful and thoro study.

6. *The books and accounts.*—The books of accounts to be introduced in a concern will include not only books of original entry, journal, cash book, purchase journal, sales journal, petty cash book, etc., but also the ledgers. Other books may be introduced to present specialized information. There should be established, however, in one volume a definite and accurate control of each other book or all books of the organization. The general ledger should contain controlling accounts for the accounts receivable ledger and for the accounts payable ledger. There might also be a controlling account in the general ledger for the cost of repairs to the various departments of the plant. Another account would be the payroll, showing in one account its total, while a subsidiary ledger or record would show its distribution.

In a great many offices there has been introduced with satisfactory results a ledger known as a private ledger which is kept under lock and key. Such a ledger contains accounts covering information usually of a financial nature which will be required by the management, but which it desires to have accessible to the management only. The accounting department itself does not need to be familiar with certain information in connection with an organization, such as the amount of surplus shown by the company, the amount of the capital stock, the inventory of various trading assets at the beginning and at the end of each period, the investments that the company may have made in some enterprise other than the direct activities in which it is engaged, the drawing accounts of the partners, the special funds that may be established, and so forth.

7. *Loose leaf ledgers.*—Ledgers in loose-leaf form have been primarily employed for the purpose of keeping detailed records, oftentimes with customers' accounts, and with creditors' accounts. They are also introduced for the purpose of keeping a record of inventory fluctuations of stock. They can be used for keeping a record of stocks owned by the clients of banking houses, bonds owned by the banking houses themselves, or by customers. In fact they can be used for any subsidiary record that may be devised if they are properly controlled by controlling accounts in some other book or record. The most frequent use of a loose-leaf ledger has been for accounts receivable.

In this ledger separate pages are given to the record of an account with each and every customer of a concern. The balances shown in these accounts at the end of any month are extracted upon a trial balance and totalled. The total of these balances should agree with the balance shown in the accounts receivable controlling account in the general ledger. Obviously if the total of the balances as extracted from the underlying ledger agrees with the controlling account balance shown in the general ledger, the underlying ledger has been properly kept during the month, in respect to its mathematical accuracy at least. Of course, no system or method can positively prevent a bookkeeper from making an error in posting from a book of original entry to the wrong account in a ledger. But if a bookkeeper posts all debits to the debit side of accounts in a ledger, then his work has been correct mathematically and mechanically.

8. *Card records.*—Quite similar to the loose leaf records are card records except that they lack a binder. Sometimes cards are kept in a drawer, being protected by a steel rod which extends thru the base of each card, thus holding it securely in the drawer except when records are being made upon the card in pen or pencil by the bookkeeper in charge. Card records have been introduced with very satisfactory results in connection with customers' accounts, creditors' accounts, inventory records, and so forth. Cards may sometimes be indexed differently from loose-leaf rec-

ords and some index systems have been carried to a high degree of refinement.

9. *Indexing.*—The method of indexing loose leaf ledger sheets that has been found quite satisfactory is the introduction of alphabetical tabular sheets, that is, for each letter of the alphabet there will be a special sheet introduced with a letter attached, protruding beyond the end of the sheet. Then, if a bookkeeper should require information from an account beginning with the letter A, he would turn up the page A and inspect the account within the section. In order to assist the bookkeeper in locating the accounts in each section the introduction of numbers in connection with each sheet underlying the respective sections has been considered helpful. For instance all sheets that might be introduced back of the letter A would be numbered consecutively 1, 2, 3, etc. Then if the bookkeeper requires information from the account Abel, he turns to the tab A and looks thru the index sheet, and under the vowel column E he would find the name Abel and opposite the name the number, possibly 15. He would turn to page 15 of the section A and would locate at once the account Abel.

Now if the bookkeeper did not have this numerical arrangement in his ledger it would be difficult for him to find the account Abel, for he would be obliged to turn a number of sheets until the account name appeared. Therefore the method of having a column shown upon each index ledger sheet with a vowel, a, e, i, o, u, and indexing according to the first vowel following the first letter of the name, will be found quite satisfactory if introduced in connection with loose leaf indexing. Then a number can be placed opposite the name as it is listed. Of course, the bookkeeper must be careful not to assign more than one number to a name. For his protection in this regard the plan is sometimes used to introduce the name in numerical sequence and as rapidly as a leaf is introduced in a section of the ledger to assign to the account represented by the leaf a number irrespective of whether it follows in proper vowel sequence or not.

In connection with cards a highly developed system of indexing has been introduced with satisfactory results, so that when a bookkeeper wishes to refer to a card, even tho there are a large number of cards within the file, after understanding the methods of indexing he can turn to the card desired in a very few moments. In connection with the indexing feature of a card file it is essential to have transfer index cards as well as active index cards. The transfer index cards should be quite as numerous and quite as complete as the active index cards. For this purpose it is suggested that a similar drawer or section be kept for all transfer cards, this drawer indexed to correspond with the active card index. For instance, if index cards under the letters A to F are kept within one drawer, there should be introduced as well index cards from A to F or guides from A to F for transfer purposes. Then if a bookkeeper is looking for a card which may be filed under A-17 he can locate a transfer card in the same identical position in the transfer file as it would ordinarily appear in the active file.

There are methods of indexing, however, where a bookkeeper will not be obliged to refer to a special alphabetical index in order to locate the number assigned to a particular card. The indexes will be subdivided in such a manner and the names will be arranged and cards located in such way that a bookkeeper can turn to the name of a concern without a great deal of difficulty. For instance, the name John Wanamaker if written upon a card will designate to the bookkeeper that the card should be filed under W but in the same sequence or location as J affords to an alphabetical index. For example, then, the bookkeeper refers to W and in subdivision J would secure the card John Wanamaker. Then if the transfer indexes are arranged in the same sequence as the active indexes, the bookkeeper could find John Wanamaker's card quite readily even tho it had been transferred to the transfer file since he had last been obliged to make reference to the card.

10. *Loose leaf—pro and con.*—A great many accountants and business men have objected strongly to the introduction of loose leaf and card records, and with a certain element of justification. But there would be quite as much objection from the same individuals in some offices against keeping any records.

There is carelessness in vogue in a great many establishments and there are a great many individuals who will never be anything but careless. Any kind of a record in their hands would be kept carelessly, irrespective of whether or not there were safeguards established. In an organization where a system cannot be introduced which will be all-protective and all-comprehensive, and where one or more persons of inferior minds keep the records, a bound record will be kept quite as unsatisfactorily as a loose leaf record.

However, for the protection of the individual it is an excellent plan when loose-leaf records are introduced to have them properly controlled by some other record or mechanical total. The argument has been advanced against the introduction of loose leaf records that they can be lost. Truly, money can also be lost, but if the individual guarding the money is held responsible for it he is very careful to see that he loses none. If the individual in charge of loose leaf records understands the value of those records, it will undoubtedly be his desire and it will be his attempt to see that they are properly kept and not lost. Of course, it is quite possible for a dishonest bookkeeper to snatch from the cover of a loose leaf book one of the pages which has been inserted and to destroy it, or rewrite it. But if the index of that loose leaf book has been properly prepared by a supervising accountant, it can be easily noted whether the page has been detached. To tamper with the record and insert a new sheet should not be possible if the organization of the office is a proper one, for the reason that it would be necessary for the bookkeeper to go to someone else and work in collusion with him before he could extract a sheet and rewrite it. This is checked by having each sheet as it is introduced in the ledger initialed after being headed and having each sheet initialed once a week by a supervising office accountant. This may seem to be difficult and a roundabout procedure but on the other hand it will protect the management from the loss of loose leaf sheets.

In favor of loose leaf sheets it is argued that they are flexible, that they can be inserted in a binder and transferred from a binder without a great deal of difficulty. No sheets need be in the binder which are not actively employed. All sheets upon which the accounts have been closed out can be transferred to a transfer binder or index, thus relieving the book capacity to such an extent that it can be handled with greater facility and without difficulty. A bound book consisting of 500 pages can contain only 500 accounts unless more than one account are placed upon a page. When 500 accounts have been introduced in this book, the bookkeeper must begin a new book or transfer from one half-page to another half-page various accounts as they become closed out. This makes a large amount of dead material in the volume since many accounts will be closed out. Not so with the loose-leaf book, for as one sheet becomes dead and inactive it can be transferred and as it becomes necessary to open an active or new account, a new sheet can be introduced. Therefore, a book with a capacity of 500 pages can have at all times 500 accounts therein—each account an active account. When a book requires the introduction of more than 500 accounts or possibly more than 300 accounts, a new book should be introduced, not new pages.

11. *The original records.*—In many establishments it will be found that for books of original entry bound books will be the most satisfactory. In the use of the loose leaf record there is a great possibility of introducing incorrect records. On discovering an error the bookkeeper might be tempted to copy the information upon a new page and to introduce this into the book of original entry. Supervising accountants, however, would be obliged to initial pages as they are introduced and to audit them. This can be done provided the records are brought down to a daily basis. If loose leaf sheets are introduced in books of original entry there is a great temptation on the part of the bookkeeper who has made an error to attempt to correct his error, by introducing a fresh page so that the appearance of the page upon which he is working will not be counted against his work. In copying there is a great possibility that he will make an error, since the more frequently amounts are transcribed before they arrive at the ultimate location, that is, the ledger accounts, the more frequent are the opportunities to make errors. For this reason accountants are attempting to classify original records in such a

manner that they can be posted directly to the ledger accounts, thus eliminating any intermediate posting media.

However, loose-leaf forms can be readily introduced for journal entry, sales journal entry, purchase journal entry and petty cash entry if daily audited. It is a better practice, however, to introduce in connection with cash records, petty cash records and journal transactions, the system of accounts in bound books. If flexibility is desired, separate cash books can be used for debit transactions and for credit transactions. If there are a large number of journal entries, a debit journal can be introduced and also a credit journal, and in this way flexibility will be secured. Of course, loose leaf books can be introduced advantageously provided that there are vouchers from which to post. Such a voucher would be a written authority granted by one person to another to make a record in a book of original entry or a book of final entry.

12. *Posting from tickets.*—The word ticket sometimes suggests an inadequate and simple record, but this need not be the case. In fact, a ticket can be a most complicated affair, consisting of three or four attached forms, and their use may be difficult to understand except by a man experienced in the handling of the records. Railroad tickets, for example, which are quite simple, are serially numbered and are usually printed with the name of the station at which the ticket is sold. The persons in charge of the various stations

of a railroad company are charged with a certain number of serially numbered tickets and are accountable to the chief accounting department for the sale or disposition of these tickets. This forms an accurate basis of checking and is one of the chief examples of securing data from ticket records only.

Other tickets are not so small nor so incomplete as to information. Sales invoices, for example, can be prepared in single or in manifold copies, and they can be used as posting mediums to the books of final entry before they are sent out to customers. In fact, all sales postings should be made to final records before the invoices are dispatched, for in checking or posting the invoices to the books of final entry it might be ascertained that an error has been made. Of course, this difficulty should be controlled by first checking the accuracy of all the invoices prepared before posting the data to the ledger.

If postings are made directly from tickets to the ledger, it will be recognized that it will save a certain amount of transcription and provide against a possibility of transposition or other error. All tickets for one day could be grouped together and the postings made to the books of original entry from the respective tickets. At the end of the day the total amount shown upon the tickets could be added together and the total of the amount posted to the ledger could be added together, and if the amount of the respective footings agreed it would appear that the postings for the day had been made correctly; then the daily tickets could be fastened together securely and filed according to the date.

13. *Duplicate forms.*—The practice of duplicating records as the records are originally made is becoming more popular day after day. Go into a department store today and it will be noted that the sales person when preparing the slip recording the sale of a certain article will record that sale in duplicate. The original copy will probably be given to the customer, the duplicate transmitted to the accounting office where it affords a basis of charge or credit as the case may be. In all kinds of establishments at the present time, sales records are being kept in duplicate, oftentimes in triplicate and quadruplicate, the various carbon copies being employed for different purposes. As an example of this, we might take a sales invoice prepared in triplicate with the use of carbons.

The original sales invoice, after the verification of extension and prices has been made, is sent to the customer. The first carbon copy is employed in the bookkeeping office for posting purposes and the second carbon copy in the service or statistical department for the purpose of tabulating sales analysis.

In the case of a purchase order, consider the possibilities afforded by preparing four copies. One copy can be sent to the creditor as an order, the second copy can be retained by the purchasing department for the purpose of following up the order and can be filed according to date of expectancy or in an alphabetical index. The third copy can be sent to the receiving department as a notification to them that such merchandise is expected and upon this copy the information as to the quantities of merchandise can be eliminated by having the carbon sheet of a smaller size or by tearing off a certain portion of the copy after it has been prepared, which is probably preferable and easier to manage. The fourth copy can be handled by the purchasing department, which has the second copy for their "expected to arrive" file, and can use the fourth copy in an alphabetical file according to the name of the creditor.

14. *Sales invoices and sales records.*—In order to illustrate this point still further, it will be assumed that the four-copy invoice form is used in an establishment which has a number of branch managers. Suppose that a sale is made in Chicago.

The New York office handling all records will prepare a quadruple sales invoice. The first copy of this invoice will be sent to the customer who is in the Chicago district, the second copy will be retained by the sales department as a posting medium, the third copy of the invoice will be sent to the salesman making the sale in order that he can check up the commission which may be due him on the sale and the fourth copy can be sent to the branch manager at Chicago. In this manner each department of the enterprise is informed of the invoiced sale as is the customer. Now one of these copies might be employed for a different purpose than information to the salesman. It might be considered more important to send the copy of the sales invoice to the inventory or stock department so that they could tabulate the inventory fluctuation in regard to decreases for that particular day and thereby support their records of inventory. Of course, this analysis can be performed by the sales department which, at the end of the day, sends a recapitulation statement to the inventory department, informing them what fluctuations took place as a result of sales shipments for the day.

15. *The voucher register.*—In modern accounting a voucher register has frequently been introduced. This form embodies the idea that invoices as they are received from creditors will be paid in accordance with the terms and stipulated amounts shown upon the invoices. A voucher is a written evidence, thus affording authority, issued by one person to another for making an entry or carrying some transaction to completion. The voucher register is the form upon which are recorded the financial data shown upon the various vouchers. Assume, for instance, that a merchant receives an invoice from a creditor for the amount of $100. The text of the invoice agrees with the kind of materials or service which has been purchased; the price being in accordance with the contract with the creditor. The amount of $100 is therefore correct and could well be entered in a book of original entry representing purchases of service or material.

We shall assume that the voucher register is a columnar book similar to a purchase journal, and that the $100 purchase should be charged to department A. The merchant would make an entry in the total column of $100 and he would also repeat the financial data in the column representing department A. Beside the amount of $100 would be shown the name of the creditor rendering the invoice and an explanation of what the invoice is for, together with the number of the voucher which has been attached to the invoice. When the time for the proprietor to pay this particular invoice or voucher arrives, a check will be drawn and sent to the creditor. At this time the voucher form itself will be checked with a rubber stamp as being paid and the record in the voucher register will also be checked as having been closed out. The total amount as entered in the cash book column "accounts payable," recording the payments to creditors, will be debited to the account "accounts payable" or "vouchers payable" in the general ledger. The total amount of all vouchers which have been prepared and entered in the voucher register has been posted to the credit of the same account. The difference would represent the amount of money that the proprietor owed to all creditors as evidenced by the respective unpaid vouchers.

16. *Proving the accuracy of the register entries.*— The unchecked items in the voucher register indicate the amount of the unpaid vouchers and in support of this the bookkeeper will turn to the numbers as evidenced in the voucher register and check against those entries the information shown upon the actual voucher. If the total of these vouchers represent-

ing unpaid items agrees with the total balance as shown in the vouchers payable account at the end of any particular month, it may be assumed that the voucher register entries have been made correctly and that the ledger is also correct. It will be recognized that by this method of recording purchase transactions in the books of the proprietor, a large element of time will be saved as there will be no postings made to the respective ledger accounts of the creditors. It will also be argued, however, that unless the proprietor can pay invoices in accordance with the terms shown upon the invoices, that is, upon the due dates, a voucher register method of payment or record would not at all times be found satisfactory, as payments on account will have to be evidenced upon the voucher forms themselves and therefore the voucher forms will constitute practically separate accounts. When a number of invoices are received from the same creditor each month, several vouchers will be required. Under the ordinary bookkeeping method only one account would be kept with one creditor. Under the voucher system a number of accounts would be kept with the same customer unless vouchers can be paid as they are received.

17. *Indexing vouchers.*—It will be recognized, then, that a separate index must be kept of all vouchers due the respective creditors, and this index would take the form of alphabetically arranged cards, whereas the voucher form itself would receive a number and be arranged according to number. There-

fore in order to locate a voucher for John Smith it would be necessary to turn to John Smith's alphabetical card and then determine his number, which might possibly be 1,241, then turn to the voucher file and locate voucher 1,241. It may appear to the reader that this process would take a certain element of time in excess of that required for actually posting the data to the creditor's account and in addition turning to the creditor's account when information might be desired and required of this account. When, because of volume, it becomes necessary to prepare a large number of vouchers which can be paid promptly and in accordance with terms, a voucher register method of record will prove to be an advantage over the ledger account method.

18. *Handling purchase records.*—It has already been mentioned that a fourth-copy purchase order affords great possibilities to the purchasing department and other departments of the business following up purchase transactions. One copy of the form can be used for recording the purchasing department activities and follow-up and one copy of the form sent to the main office. Then, when the invoices are received from the creditor the amounts or quantities as shown upon the invoices can to be checked against the purchase order copy. In this way an invoice is checked before it goes to the purchasing department or to any other department in order to be O.K.'d by those departments for payment. That is, if a purchase invoice were sent to the purchasing department

for their O.K. it would not be difficult for the purchasing department to O.K. the invoice irrespective of whether a purchase record had ever been issued for the order or not, unless a copy of that purchase order had gone to some other department. It is therefore wise to have a copy of the purchase order sent to the accounting department when the purchase order is prepared, in order that the accounting department can check against the purchase order itself the invoice which may have been received, so that two invoices covering the same purchase cannot be received by the department and passed thru the books of the company for payment.

19. *Mechanical devices.*—Various mechanical devices have been introduced which tend to save the work of bookkeepers and officers of a company. These mechanical devices include machines for adding figures, machines for subtraction, for multiplying amounts, for calculating odd extensions, for calculating stock values, and so forth. Invoice machines have also been made which will permit a bookkeeper to prepare an invoice, a posting to a ledger account and a statement all at one operation. These machines have been improved to such an extent that when a posting of $26.52 is made at the time of preparing an invoice a statement is also prepared showing a $26.52 item. Not only that, but if the customer's balance at the beginning of the day was $32.52 and during the day he should purchase goods worth $26.52, the machine would record the figure $32.52 and when

the invoice is prepared, for $26.52 would automatically extend to the second column the total of $59.04 representing the true account balance as against this particular customer. Of course by introducing machines of this type the work of the bookkeepers will be greatly simplified, as the work will be proved as the entries are made. Thus time at the end of the month is saved, for there is less likelihood of there having been any errors causing difficulties of proof at the end of the month. It will be recognized, however, that it will take time, and expert operation, possibly, to carry on these detailed transactions and records every day. In any case, the requirements of each separate business will determine the methods to be followed. No ready-made system or set of forms can be recommended for use in all cases.

The labor saving devices of one generation become the standardized practice of the next. It is interesting to note that columnar books when first introduced were looked upon as labor saving devices. The expression is now generally understood to apply to mechanical aids to work. The advisability of installing any of them depends, of course, upon whether the gain which results from the saving of time and the greater accuracy compensates for the cost of installing improved methods.

REVIEW

What are the main purposes of labor saving devices? Can they be distinguished from standard practice?

Describe the application of the loose leaf system of ledger accounts; the card system. What are the advantages and disadvantages of these systems?

How does the use of tickets facilitate the preparation of the books?

Describe the uses to which duplicate forms of the sales and purchase invoices may be put.

CHAPTER XX

INTERNAL CHECKS

1. *Accuracy an essential.*—Accuracy is a prime requisite of accounting work. The whole system of modern accounting is based upon the equilibrium of debit and credit. This is at once an assurance of accuracy and an ideal which in practice can be attained only by laborious effort. Systems of internal check have then the twofold purpose of preventing error and of discovering errors when their effects have been noted, but the errors have not been located. Such checks also serve to safeguard the proprietor against dishonesty and protect the clerks against temptations to wrongdoing.

In the present chapter various methods of verifying the accounts and locating errors will be considered.

2. *The Boston ledger.*—Various types of ledgers employed, whether bound or loose leaf, whether with two columns or three, or whether the plain ordinary ledger with a debit and a credit column, have generally no way of proving the mathematical accuracy of the work except at the end of the month when a trial balance is taken. Of course, these various account postings could be checked back from day to day in

order to determine whether they have been made correctly, but this involves extraordinary effort.

The Boston ledger is commonly used in banks. It affords an easy means of obtaining a daily balance, and a complete record of all transactions affecting the accounts. It is usually a controlling record, the details of which are given elsewhere. Storage warehouses, real estate agencies and other businesses whose patrons are many but whose monthly transactions are few, have made frequent and satisfactory use of the Boston ledger. Its chief advantage is that whenever errors occur, they may be immediately located.

A form of Boston ledger sheet is shown upon the following page. A new sheet should be added each month, but by the use of short sheets, and binding on the right it becomes unnecessary to rewrite the names of the accounts. The name is entered on one master sheet and the short sheets will fold in so as not to cover the name of the account affected by the various entries. A line or a few lines would be employed for one account for the period of a month, employing the columns to the right for the monetary data from day to day. The balance at the first of the month is brought forward and the debits or credits in the various books of original entry are posted in the appropriate columns, that is cash, sales or journal. If an error has occurred we may total the columns and prove them with the books from which they came.

3. *Automatic checks and good form.*—An accounting system, to be successful, must be founded upon a

satisfactory basis of routine. No matter how extensively the work is subdivided, and no matter how advanced the various books may be, the routine or sys-

BOSTON LEDGER
(Master Sheet)
March 191—

ACCOUNTS	DATE	INITIAL BALANCE	DEBITS			CREDITS			CLOSING BALANCE
			CASH	SALES	JOURNAL	CASH	JOURNAL	SALES	

tem under which the information is gathered, classified, recorded and reported, must be complete or the system will fail absolutely.

Bookkeepers should not be required to go out of their department to seek information. Forms should be prepared on which all the departments report to the accounting department the data which it must record in order to prepare a summary of the various department activities. Standard times should be set for the performance of every operation, if this is possible. The work should be so divided that each clerk will be busy all the time, but not especially rushed at any particular time. This seems like theory only, and it will take considerable time in order to introduce a system which will keep each and every employe busy at a regular rate of speed, but when introduced it will be found excellent practice.

Good reference files in which the information as reported and segregated can be filed, will be of great value to the management and to the accounting department. A definite plan should be introduced as to what to do with the information after it is secured and what to do with the information being secured, when it has been recorded. Oftentimes large quantities of forms and files remain on hand in an office after their usefulness has to a certain extent ended. Immediately a form becomes obsolete, or the information upon the form has been recorded in a permanent book of record so that frequent access to the original form need not be made, then the original form should be properly filed in records which will permit prompt reference when necessary.

4. *Proving accuracy.*—The simplest method of verifying the accuracy of a bookkeeper's work is, of course, that of checking over what he has done. A bookkeeper will be frequently disturbed during the day and this, with the monotony of the work, may lead to errors, no matter how capable he may be. A poor bookkeeper, or one who is inattentive to the work in hand, will be continually making errors. The

check on the bookkeeper's work may be made either by the bookkeeper himself or by someone else. It is better practice to have someone else do the checking, for a bookkeeper has a certain natural tendency to repeat the operation in exactly the same way in which he first performed it. If he checks his own work it is not unlikely that he will pass by an error that he has previously made.

5. *How to check the work.*—The simplest method of checking the work is to review it in detail, during the period under examination. There is a gain in accuracy as well as time when two persons check back the work. One person can call the amounts as entered in the books of original entry and the other individual can verify the posting to the ledger. As the items are called from the books of original entry and checked in the book of final entry a check mark should be made before each item. This will be an indication to the persons checking the work that down to and including the items so checked every entry has been gone over for the second time in an attempt to verify the postings or detect the error. Of course, this is a time-consuming performance but it makes sure that the books are in balance since the errors will be noted and corrected.

After the checking is completed, any of the unchecked items are again considered and must be investigated. If an item has been posted to the wrong account the fact should be discovered during the checking process. The correct posting must then be made and checked off. After that the correct posting or postings will stand out as unchecked items.

It is seldom advisable to have one person work alone upon such work, for the clerk who calls off the entries will be much better able to judge as to the accuracy of the amounts and quote them properly to the person checking the entries than if one clerk were working upon the work and checking from one book to another.

6. *Reconstruction of posting media.*—The method above described is sometimes varied by reconstructing the books of original entry from the data contained in the ledger. In other words, the postings for the month in the ledger are segregated and classified according to their sources. This method is known as analyzing the ledger or is sometimes called reverse posting. A sheet somewhat similar in form to that shown on the following page is constructed from the debits and the credits in the ledger.

Let it be supposed that the debits are normally received from the cash book, the sales book, the purchase book, and the journal. A debit column and a credit column will be provided then for each of these books. Beginning with the first account in the ledger, all transactions for the month will be transferred individually to their respective columns on the reverse posting sheet. Only the amounts need be entered on the sheet. When all postings have been transferred to the sheets, the totals for each column should equal the totals in the books from which they have been taken, and the total of the debits should equal the total of the credits. If this equilibrium does not exist the error must lie in one or more of these columns.

Reverse-Posting Sheet

Debits ________191___ Credits

CASH	PURCHASES	SALES	JOURNAL	CASH	PURCHASES	SALES	JOURNAL

By a comparison of the total of each column with that of the book in which the item originated, the particular book in which the error occurred can soon be found. It is then necessary to go thru that book and locate the error. The first step is to look for one item, the amount of which is the same as that item which appears to be in error. If the error cannot be found in this way, it is probable that the item is composed of two or more separate items and the books must be rechecked until the error is located. Such a check may be made at the end of each day, in order to verify the transactions of that day; or it may be carried on continuously during the month, in which case the total will be brought forward every day. The latter method would serve to prove the additions in the books of original entry. If the reverse posting sheet is not continually used it will frequently be found an aid in locating an error that has been disclosed by the trial balance. For such a purpose it would be prepared at the end of the month for the entire month's transactions and would then be known as an analysis of the ledger.

7. *Routine, reverse posting methods.*—The question may arise, when should the reverse posting sheet be filled out—at the end of posting or separately at some other time? It is, naturally, easier to make the posting to the ledger account first, and then, while the ledger is open, to transfer this amount again to the reverse posting sheet. As a matter of fact, the value of the reverse posting process is due to the fact that the contents of the reverse posting sheets are transcripts of the ledger. It is possible, if the transfer is made at the time the account in the ledger is posted, that the clerk, even if he has the correct figures fast in his mind might make the entry on his reverse posting sheet directly from the book of original entry, and yet make an incorrect posting to his ledger. It is far better to reconstruct the ledger postings separately, and after the ledgers are posted.

There are two methods, either of which may be used. One is to examine every transaction in every account recorded in the ledger, and to select those that are entered under the date being checked. The second is to leave at the time of posting some indication by means of which the accounts affected may be located readily at any later time. This latter method makes it possible to compile the reverse posting sheets by referring only to those accounts that have been indicated as suggested above. This method if correct is certainly to be preferred when there are many ledger accounts. It must be admitted that the first plan insures greater accuracy and the elimination of such errors as posting the same item in two different accounts.

The second plan is the one more frequently used. Sometimes strips of paper are inserted in the proper places at any account to which postings have been made. When a reverse posting is made it is necessary only to refer to the account indicated by the slip of paper. Sometimes different colored slips of paper are used to mark these places, for example, red slips for debits and white slips for credits. This method is not to be commended because the position or the color of the slip is liable to have a suggestive effect on the bookkeeper and to lead him to correct his error when he makes a transfer instead of leaving it to the checker to verify the entire transaction. If a card ledger is used it is possible to segregate the cards to which postings have been made and keep them separate until the reverse posting has been corrected.

8. *A current reverse check.*—A method has been suggested by some bookkeepers and accountants by which the trial balance itself is made almost self-proving. Some form of checking is essential to accurate bookkeeping, and this method combines the checking with the current work of entering the books and proving them. The method is not advised unless there is no other method to be employed, but it is outlined here so that it can be accepted by those who believe that it would be an advantage in the particular circumstances under which they may happen to be working.

The ledgers are posted according to the ordinary methods, no other check being made on the individual postings in the ledger. On separate proof sheets all accounts in the ledger are constructed. Skeleton accounts only are erected upon these sheets which bear the page number of the book of original entry and the amount as entered there, and, therefore, require very little for an entry. This posting to separate sheets where as many as one hundred accounts are grouped under observation at one time can be done quickly. In fact, it has been found that the separate accounts can be posted in a shorter time than would be required for a complete checking of the individual postings to the ledger account in the ledger. On another sheet the trial balance is prepared in a form somewhat like the following:

Trial Balance

__________Company

__________191_

ACCOUNTS	BALANCE 1ST OF MONTH		MONTHLY DEBITS ON CREDITS		BALANCE END OF MONTH	
	DR.	CR.	DR.	CR.	DR.	CR.

The two columns on the left contain the balance in the account at the beginning of the month, two columns in the center are provided for the total debits and total credits of the month. These items are obtained from the ledger accounts that were constructed on the proof sheet. Thus it will be noted that the proof sheet itself contains only a summary for the month of every debit and every credit to each account.

When these monthly totals have been transferred to the trial balance, the balance at the end of the month is obtained by adding or subtracting the net gains for the month to the balance at the beginning of the month. If the work has been done correctly the page totals should present an equal state of balance. The net debit or the net credit at the beginning of the month plus or minus the net debit or the net credit during the month equals the net debit or the net credit at the end of the month.

After all the monthly figures have been transferred to the trial balance, and the new balances at the end of the month have been computed, first the monthly figures may be added, and then the total balance figures. Of course, if the monthly figures agree, that is, if the debits equal the credits, there is the basis for a correct trial balance. In order to present a complete trial balance it is necessary only to make the extensions to the new balance column. It is possible however, that errors may have been made which do not appear in the trial balance, such as posting to the wrong account and similar mistakes.

In order to verify ledger accounts and eliminate any such errors, the balance of each account in the ledger is computed. It is then indicated in the balance column of the ledger account. The balances as shown by the trial balance are then checked against the balance of each ledger account. There is very little chance that an error will be made in the trial balance by one clerk and repeated by another in posting to the ledger. If the two balances agree it is reasonably certain that all postings are correct, not only as to amounts, but also as to accounts. Of course, if the totals and postings do not agree, they must be verified, and the proper correction must be made either in the trial balance or in the ledger account.

This double work undoubtedly takes time. Some bookkeepers have calculated that tho they do the work twice, they can accomplish more since it requires less time in the first place to post the work which they expect to prove. They work upon the theory that every man makes mistakes and therefore they should go as rapidly as possible since, if errors are made, they will be corrected later. This idea is not to be commended. Accounting should be accurate, the records made without waiting for correction. There should not be so great a necessity for correcting the records as exists in so many offices at the present time. Why not bring the accounting basis down to a daily basis and save this element of wasted energy at the end of the month and be assured when the books are closed at the end of the day that they are correct?

If a bookkeeper calculates his trial balance at the beginning of one month by adding the debit entries and the credit entries of an account to the trial balance figure at the beginning of the month before, there may still be an error in adding the ledger account. Of course, if the totals of the ledger accounts are balanced and then extracted on another trial balance, the bookkeeper has gone thru the following operation: posted the ledger originally, double posted the ledger to show to ledger account, extracted a trial balance from the totals of ledger accounts, added these debits and credit balances to the balances as at the beginning of the month, extracted a trial balance of the ledger independently of the one extracted as the skeleton ledger account, and compared the skeleton ledger account balances with the ledger account balances as per the respective trial balances. This seems to be a long and arduous method of proving books, but the practice is in vogue in some offices.

9. *Locating an error.*—If the trial balance does not balance before it is checked against the ledger, it is extremely probable that the error will have been located by the time the ledger has been checked. This should always be true, but the difficulty is that bookkeepers many times in checking back their work at the end of the month do it under stress and press of time. Usually the end of the month and the beginning of the next month are very busy times in an accounting office. The bookkeepers are tired, they work late at night and oftentimes the error which was made upon the second or third day of the month when work pressed hardest is not even corrected at the end of the next month without checking the work three or four times.

If an error of posting exists it is not a very difficult matter to locate it, provided two clear-headed individuals are able to check the work back. The trial balance shows total debits and total credits for the month. It is not probable that the error is due to incorrect posting; it is more likely that it is the result of incorrect addition in the book of original entry or the book of final entry. By totaling all the debits and all the credits in each book, they may be quickly checked against the monthly totals in the trial balance. This process will sometimes indicate the error to be either on one side or upon another side. Of course, sometimes there can be two errors made, with one offsetting the other. Then it only remains to prove the side on which the error occurred, by checking the additions in the book of original entry. There are many other ways of making errors. For instance, an item can be transposed, 123 can be written 312 or 321. Errors of this kind are quite frequent. Oftentimes the footings in the ledger accounts are inaccurate.

TABULATION SHEET

	1	2	3	4	5	6	7	8	9	10
ACCOUNTS	OLD BALANCE		DEBITS FROM			CREDITS FROM			NEW BALANCE	
	DR.	CR.	CASH	SALES	JOURNAL	CASH	SALES	JOURNAL	DR.	CR.

10. *Tabulation of ledgers.*—The reverse posting sheet and the special form of trial balance, previously discussed, are sometimes used in the tabulation of the ledger at the end of the month solely for the purpose of locating any error that may have been previously committed. The monthly figures are separated according to books of original entry from which they come, so that they may be checked in total against those books. On the page opposite is a tabulation sheet; the cash book, the sales book, and the journal are the books of preparatory entry.

This form not only classifies the postings in the ledger according to the books from which they are obtained, but it also proves the accuracy of the balances that have been derived for each account. It will be noticed that this sheet is prepared from the ledger accounts, and not from the books of original entry. After the entire ledger has been tabulated in this manner, it is possible to prove: first, the total debits to the cash book, the sales book and the journal, and second, the new debit or credit balance that will be checked against the figures in the trial balance.

The total of the cash column on the debit page will be checked against the cash book debit page. In the same way, the tabulation itself may be proved by showing that the totals of columns 1 and 2, 3 and 6, 4 and 7, 5 and 8, 9 and 10, are respectively equal. In proving the cash column, we must, of course, insert the cash balances at the beginning and at the end of the month. It is not desirable to take the total amount posted to a particular account from a single book and to enter that total in the tabulation; each separate item is to be listed under the proper account name on the tabulation sheet.

11. *The daily summary.*—The records as made in the books of original entry by the various bookkeepers can and should be proved on the day and week the records were made. It is also true that the records and postings to the books of final entry from the books of original entry should be proved and audited, if possible, upon the day on which they are posted. In order to arrive at this basis of accounting it will undoubtedly be necessary to introduce special forms for this particular purpose. In the end, however, it will be more economical if the special forms are introduced and if the system is inaugurated and maintained from day to day.

Daily summary sheets of almost any size can be employed. Thus it is convenient to have letter size paper, 8½ inches by 11 inches, punched at one end with a two and three-quarter inch punch so that they can be filed upon what is known as a Shannon Arch file, either within a cover or upon a rack which can be hung or placed on the wall.

It might be well in this discussion to review the activities of an office during the time the employes are recording sales transactions upon invoices and calculating the transactions and posting them to the ledger accounts. It will be assumed that the concern is handling fifty sales orders a day, makes fifty shipments of merchandise a day, and, therefore, prepares fifty sales invoices a day. It will be assumed that the sales invoice employed by the bookkeeping department will consist of at least two copies prepared with the use of carbon paper on the typewriter.

After the invoices have been prepared, they can be checked back against the original orders in order to see whether they are complete. If they are, the original of the sales invoices is detached from the carbon copy and mailed to the customer. The carbon copies of the invoices numbered to correspond with the invoices sent to the customers, should be attached together for safe keeping. After attaching the invoices together they should be placed within an envelop of practically the size of the invoices and the envelop dated and turned over to a Comptometer operator or to another clerk.

12. *A sales analysis.*—The sales should be analyzed immediately according to the kind of merchandise which has been sold or shipped during that day, as evidenced by the sales invoice carbon copies. This analysis could be prepared upon the paper suggested—8½ by 11 inches—by printing along one side, that is, down the left hand side, the names of the various articles which are dealt in by the company as sales. Columns are provided for this information as follows: Numbers of the invoices, quantity and amount. The total of all the amount column items upon this summary should agree in dollars and cents with the total value of all invoices. In order to verify

this, the amounts as shown upon all invoices should be calculated by the comptometer clerk at the same time.

13. *Daily summary of invoices.*—Another summary upon the same size paper with the heading Daily Summary of Invoices has columns provided for "invoice number," "quantity sold," and "sales value." Such a sheet may be prepared with three columns for city sales, three columns for out-of-town sales and three columns for total sales. A sheet 8½ by 11 inches can be arranged to provide without difficulty for thirty-one spaces for monetary and written information upon one side and sixty-two invoices can be listed upon one side of a form of this size. By reversing the form and employing both sides, 124 items can be listed, but it is better to use two sheets.

Now if the numbers of the invoices and the amounts of the invoices have been shown upon the daily summary of invoices, and the totals of this form agree with the total summary or analysis of sales, up to this point the bookkeepers or the tabulators have made their entries correctly.

14. *Card ledger.*—It will be assumed, now, that a number of ledger cards are used as a customers' ledger. The bookkeeper turns to the drawer file holding the cards that are required or to the various drawer files that hold the cards and with the use of the copies of the invoices would locate the respective cards which require posting during that particular day. He extracts from the files the cards required in order to handle the sales postings of the day and

places them upon the desk in the same order as the invoices. Then from the copy of the sales invoices themselves the amount of the invoice is transferred to the proper space provided upon the cards. The cards are then turned over to another clerk and this clerk with the use of the Comptometer machine again or with an ordinary adding machine adds the amounts as posted to the ledger cards during the day. The amount determined after footing the amounts shown upon these ledger cards should agree with the summary of invoices for the day and with the analytical summary of sales for the day. If this is true it can be assumed that all the debit postings representing sales have been posted correctly to the various ledger accounts.

The same method can be employed in posting cash book entries during each day. For instance, all the cash receipts of the day are entered at one time and totalled and the cash book ruled off up to this point. The cash book is then to be turned over to the ledger clerk who posts the cards in the same manner as tho he were posting sales except that the cash receipts are posted to the credit of the ledger cards. The cards are then turend over to another clerk and the process of verification is made in the same manner.

15. *The daily audit.*—It would appear under the circumstances as outlined above that it would be quite a simple matter for an auditor to review the work of the department at the end of the day and satisfy himself whether the entries have been made correctly.

The daily summary of invoices form, the daily analysis of sales form, and the adding machine slip totals would appear to afford satisfactory vouchers for the auditor's O.K. Daily audits of this character can be introduced in other departments of the enterprise. For instance, there is quite a field for the daily audit in the summary of requisitions in order to prove that the quantities as requisitioned have been calculated and valued in accordance with facts. Such a summary could be employed by the stock ledger clerk in posting the inventory fluctuations to the inventory cards or ledger accounts under his view.

Another daily summary may be introduced, that known as a daily summary of operations and job costs. That is, the cost of every job, or every operation in the factory, can be calculated upon small cards and the information summarized with the use of the Comptometer and shown after having been calculated upon the daily summary. The internal check would then be the auditor's O. K. In fact, an audit sheet is only a report of a review and an examination in order to verify the data as entered. The more frequently we make the audit, the less difficult the audit will be, and the more frequently the management will be notified of errors. There will also be established a more effective protection against fraud. Therefore, daily verification is strongly advised.

REVIEW

Describe the Boston ledger. When is its use advantageous?

Explain the process of reconstructing posting media, and the method of using the reverse posting sheet.

Describe the method of tabulating the ledger for the detection of errors.

Describe systems in use to control expenditure of petty cash.

Why is daily verification of the bookkeepers' work advisable?

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