## IMPORTANT THINGS TO KNOW AND DO

1. Read the introductory lesson "The Starting Point in Accountancy." The instructions there are vital to your success.
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HENRY RAND HATFIELD MEMORIAL COLLECTION PRESENTED BY FRIENDS IN THE ACCOUNTING PROFESSION
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11. Upon the completion of the first ten lessons you will be furnished a neat durable file for your returned papers.
12. Lay out a program of study and follow it. One lesson a week is a satisfactory program if you are employed thru the day. You may want to send them in faster. That is all right, but BE REGULAR.
Keep these suggestions in mind and begin as soon as possible on the introductory lesson "The Starting Point in Accountancy" -then take up Lesson 1.

La Salle Extension University Michigan Ave. at Forty-first Chicago

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## THE STARTING POINT IN ACCOUNTANCY

ATHORO STUDY of the fundamental principles of accounting ought to be part of the equipment of every business man. The fact is that modern accountancy enters into virtually every profession, except medicine and one or two others. I do not mean that accountancy need be or should be the ultimate goal, but the mastery of accountancy is one important rung in the ladder leading to business success.

PERCY H. JOHNSTON
Vice President, Chemical National Bank, New York

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## THE STARTING POINT IN ACCOUNTANCY

Accounting-Its Importance to Business. It's surprising how much better one can work at a thing after one gets the big vision of what he is accomplishing.

Michael Faraday was a bookbinder's apprentice, with apparently no aim in the world. One day, while binding the Encyclopedia Britannica, he saw an article on electricity and read it. That half-hour of reading gave him a vision that changed his whole life. He later became an international authority on electrical science. He achieved the immortality of fame.

Marshall Field showed no liking for business when, as a young man, he clerked in a general store in Massachusetts. His employer said: "He isn't cut out for a merchant." But when young Field came to Chicago and saw the great opportunities for success which that thriving city offered, a great ambition not only inspired him but carried him on to fortune and fame. It was the wider vision of his new possibilities that made him great.

This is the vision of accounting we want you to get.
All Business Dependent upon Accounting. More and more you are bound to feel that the success of all modern businesses, irrespective of whether they are large or small, depends on correct control thru accounting. When you watch a giant locomotive hauling its tons of freight; when you see a mighty steamship starting out for some port on the other side of the world; when you stand in the presence of roaring blast furnaces, humming factory wheels, vast retail businesses, banks, insurance companies, municipalities, state governments, or the national government itself, you can truthfully say, "Correct accounting methods contribute largely to the success of all these activities."

Everywhere in present-day business the accountant is at work. The manufacturer consults him about his costs. The merchant comes to him for price information. He assists the credit man in extending credit, and counsels with the banker and the capitalist in matters of finance.

The Accountant in Demand. The need for the accountant is growing. Guesswork methods of doing business no longer survive. The accountant of to-day is an apostle of efficiency. He discovers leaks and wastes. He raises the danger signal against wrong practices. The saving of untold millions of dollars in industry is one of the tasks to which accountants devote their efforts.

So whatever the work in which you make use of your accounting knowledge, be assured that you will be able to do that work more efficiently, more profitably, because you have had thoro training in Higher Accountancy.

## HOW ACCOUNTING PRACTICE BEGAAN

Modern accounting practice has reached a high state of development. While it may seem somewhat complex at times, its basic principles are few and simple. In order that you may see these principles apart from the complexity of present-day methods, we will go back a few hundred years to the time when accounting was in its very crude beginnings.

By understanding how it started you will see why there is nothing mysterious or difficult about accounting. Simple accounting, that is, bookkeeping or record keeping, started in a very natural way and probably without any conscious planning. Business just drifted into various methods of simple record keeping.

For the purpose of illustrating this simplicity, imagine yourself living in the sixteenth or seventeenth century. You have never "kept books"in fact, you have never even heard of such a thing. You decide to start in business as a shoemaker. One of the first things you do is to buy some tanned hide from a neighbor for which you agree to pay $\$ 2.00$. You also buy an awl, some waxed thread, and other simple hand tools and materials you need to pursue your trade. You pay $\$ 1.00$ cash for them.

How Bookkeeping Started. As your business expanded you continued to buy, not only more tanned hides from your neighbor, but also more materials, such as pegs, nails, thread and the like. Some of these purchases you paid for at the time, while the others you agree to pay for later. Then, too, some of the people you were making shoes for may not have paid you immediately upon delivery. And so in a very short time you found yourself entering into more business transactions than you could rely on your memory to keep an accurate record of.

What would be a more natural thing to do under such circumstances than to "jot down" somewhere, either on a piece of paper or on the wall, a memorandum of these various transactions. As soon as you started making these memorandums you became a bookkeeper, altho you might not have thought yourself one.

Bookkeeping as originally developed was, therefore, nothing more nor less than crude, probably unrelated, memoranda of transactions involving exchange in values; it was merely a "jotting down" or "chalking up" of little business deals with no attempt to classify, analyze, or even debit or credit.

The early methods of bookkeeping may be defined as a simple, day by day story of daily business happenings.

Once you get this fact clearly in mind, the whole interesting story of modern bookkeeping and accounting will be more readily understood, because it all started from this simple, unclassified jumble of unrelated notations representing simple business transactions. The modern complete systems of bookkeeping and accounting have grown out of these crude beginnings. Their development has been largely a matter of assembling and classifying items into separate records for each class.

Original Day Book a Mere Diary. Out of these crude daily jottings by primitive tradesmen the so-called "day book" was developed. It was at first simply a sheet of paper, or a board, or such writing material as was available for continual use. Thus all transactions came to be recorded in one place. The day book in its early stages might have appeared somewhat as in Figure 1.


Figure 1
It is apparent that the early day book was merely a diary of business transactions-no money columns, no debits, no credits-just explanations of simple, daily business events in which money was involved.

The Day Book with Money Columns. The most important reason for keeping these records was to keep track of money or values received or expended, or to be received or expended. The most natural thing for our primitive bookkeeper to do was to place the figures representing the money values in a prominent position, so that he might pick out the amounts easily and quickly. This prominent position might have been to the left or to the right of the explanatory section of the entry. Assuming that the figures were placed to the right, the day book just described would have appeared as in Figure 2.

This is an improvement upon the first "day book." We can clearly see the values that are received, to be received, expended, or to be expended. Merely looking at the money amounts, however, gives us no clue as to the nature of the transaction. Yet we may rest assured that the maker of such a day book would have been vitally interested in knowing what each item represented-whether it meant money to come in, money received,
money to be paid out, or money already paid out. He would naturally feel the need of knowing:

1. To whom he owed money
2. From whom money was due
3. If money paid out reduced his debts
4. If money received decreased amounts due him

Such questions would come to the mind of anyone dealing in any kind of values, and would naturally result in some simple subdivisions of transactions so that these questions would be fully answered. Such subdivisions were made even in the early days, the result being the creation of other records subsidiary to the day book, altho the day book continued to be used as a daily record of business transactions.


Figure 2
Separate Records for Cash Transactions. Every business man is interested in knowing what cash funds are on hand. Without such knowledge not even the simplest business could be conducted successfully. What is more natural, then, than to keep a separate record of all cash received and cash paid out? As a result, we have the cash book-one page, or one side, used to record the cash received; the other side used to enter the cash disbursed. That the cash received was placed on the left side and the cash disbursed on the right was probably accidental, because the early
bookkeeper knew nothing about "debit" (left side entry) or "credit" (right side entry). These terms did not come into common use until after it had become the practice to use both sides. The early bookkeeper was intereste mainly in knowing what he took in and what he gave out. Naturally he had to keep these transactions separate.

How the Cash Book Was Developed. The cash book did not take the place of the day book. The items it contained were posted-transferredfrom the day book. The bookkeeper simply picked out the cash entries from his day book and copied them in the cash book. The primitive cash book, like the first day book, was probably no more than a simple memorandum book, presumably without money columns, because in those days paper and printing were expensive. So the early cash book probably resembled Figure 3.


Figure 3

As stated before, alto the cash book recorded separately all cash transactions, they were also entered first in the day book. This duplication of work continued for a long time, and only when the cash dealings became too heavy was the extra work realized and eliminated. If a cash book recorded all cash transactions, then it was merely a duplication of effort to enter the same transactions in another book. Therefore it came about that all cash items were entered directly in the cash book. The day book took care of all other business transactions-those which had to do with future cash settlements-that is, with sales on time and purchases on time. In its early stages, however, the day book was not a journal (a book you will learn more of later) as we know it to-day,because there were no debit and credit columns in the day book.

The Primitive Ledger. In all probability the ledger-the book that contains the accounts with individuals-grew first out of the day book; it did not develop into the ledger as we know it today, but into a memorandum book which merely indicated that a credit sale or a credit pul-
chase had been made. The early ledger, therefore, contained only accounts with persons. Since a sale on credit would finally yield cash, and a purchase on credit would result in a cash payment, the value of goods sold to an individual would logically be recorded on the left side of the ledger, and the purchase from an individual on the right side of the book. Such an early ledger might have been something like Figure 4.



Figure 4
As the amounts due to creditors and debtors increased, it was natural to place all debtors' names in one book and all creditors' names in another. It was in this way that the Accounts Receivable and the Accounts Payable ledgers originated-terms which you will fully understand later.
"Debit" and "Credit" Unknown in Primitive Boolkeeping. The "debit" and "credit" feature of modern bookkeeping had not yet appeared. There was only a single entry, either in the cash book for cash transactions or in the day book for other than cash transactions. The accounts with individuals in the so-called "ledgers" were just ordinary memoranda under each name, of amounts due or owing, copied for convenience from the day book. Therefore, whenever an account was paid the ledger account would either be scratched or canceled or the word "paid" and the date it was paid written across it, as in Figure 5.


Figure 5
When an amount due a creditor was paid, it was doubtless marked in the same way.

Starting Point of Double Entry. We have noticed that all cash received and all cash to be received has been placed on the left-hand side of a book (the latter sometimes in a separate book where only amounts to be received were entered), and that moneys disbursed or to be disbursed have been placed on the right-hand side. From this point, the step to double entry was a simple one.

Let us see how double entry (the entry of both a debit item and a credit item for each transaction) came about. To illustrate: take an
account receivable which represents cash to be received. Suppose that money is received in part payment of this account. What, then, would be the effect of such receipt? A cash disbursement, representing money actually paid out, of course, reduces the cash account, and is entered on the right of the cash book or Cash Account, thus denoting a reduction of cash. In the same manner, money received would naturally, as in the case of cash disbursed, be placed on the right-hand side (or page) of the Account Receivable, thus also denoting a reduction.

Primitive Method of Posting. There may not have been a conscious posting process from the cash book to the ledger at first, but certainly it cash received was entered in the cash book on the left-hand side anc appeared again on the right-hand side of an account to be collected, the step to an actual posting or transferring process depended only upon the number of cash items. When these increased sufficiently to prevent convenient entry in both the cash book and the individual account at the same time, the transferring of the cash items to the individual accounts prob ably occurred at the end of a day. And in order that the bookkeeper might know that all cash received from a customer was also properly entered against his account, he would naturally put some kind of check mark in his cash book so that he would know that all the items werf properly disposed of.

The Meaning of Debit and Credit. Since cash paid out to a credito would naturally reduce the cash to be paid out, it would be right to place any such payments to the left of the amounts owing to individuals. At this stage of bookkeeping we can readily see why these terms were later used. "Debit" means to charge, and "credit" comes from the Latin verb "credo" (I trust) ; in other words, if any one becomes indebted to us, we charge; when he pays, our confidence in that individual is increased because he proves that the trust was warranted. Again we credit parties to whom we owe money because they trust us, and that obligation is eliminated when we pay.

The Double Entry Principle. Simple accounting or record keeping is as old as business itself. As far back as recorded history goes it is known that accounts were kept in one form or another.

It is only in comparatively modern times that the double entry prin-ciple-the entry of a debit for every credit-became the recognized foundation of accounting. To the Italians belong the credit for, discovering and developing this principle.

We have referred to the double entry principle but very briefly on page 6. A complete and very interesting discussion of this feature of modern accounting, showing you just what it means and how to use it, will be given in a later lesson.

You will also see, as you read thru the lessons that are to follow, how the primitive records about which you have just been reading grew into the more elaborate and highly standardized forms used in modern accounting practice. You will find it easier to understand the various books of
modern accounting if you will bear in mind that fundamentally they are simply developments and refinements of these perfectly simple and natural foundations.

Modern Accounting Practice. Modern accounting practice rests upon the basis of such simple fundamental principles as have been outlined to you here. The application of these principles to meet the requirements of modern business has necessitated the introduction of many adaptations and refinements with which the accountant of to-day must be familiar. He must not only know the principles of debit and credit, how to post to the ledger and many other accounting operations, but he must also be trained in the preparation of correct statements, must know how to make investigations into the adequacy or inadequacy of accounting systems; he must know how to determine costs, and to some extent he must know the principles of business organization in order to suggest improvements in the organizing and managing of modern business enterprises.

The modern accountant must also know business law, because legal rights or duties involve money or credit and are at the basis of most business transactions.

In order to meet most effectively these rigid requirements, the accountant of to-day must of necessity not only be well informed on accounting principles but he must also know how to make the most use of his information. He must be thoroly trained. He must know both the theory and the practice of accountancy. He should have a broad business outlook and, if he is to make a real success of his work, be highly specialized along certain lines.

## HOW THE LA SALLE HIGHER ACCOUNTANCY COURSE MEETS THIS NEED

The course of training which you have now definitely undertaken gives you first of all a complete training in elementary and advanced principles of accounting in the first two sections:

## Section I-Elements of Accounting Practice <br> Section II-Principles of Accounting Practice

The first section begins with the very simplest of bookkeeping and accounting methods. Even tho you know nothing whatever of bookkeeping, these methods will be so clearly outlined and explained that you will grasp them very readily. Thruout this section you will familiarize yourself with the "how" of doing things in bookkeeping and elementary accounting.

In the second section the work will be more advanced and will deal especially with the "why," with the principles, or as it is sometimes put, with the theory of the subject.

Specialized Accounting Training. Sections I and II give you a working knowledge of general accounting. You are then ready to apply this
knowledge to the special accounting problems in the next three sections which are as follows:

Section III-Cost Accounting Procedure
Section IV-Auditing Procedure
Section V-Accounting Systems and their Installation
In Section III you will be taught the principles of cost accounting and trained in the actual work done in cost departments. Section IV explains the work of the public auditor and trains you to do the work of a staff man in public accounting. After you have completed Section V you will be able to judge the value of existing accounting systems and to work out improvements or install entirely new systems along the most modern lines.

## SPECIAL TRAINING IN BUSINESS LAW AND ORGANIZATION

The next two sections of the course are:
Section VI-Business Law
Section VII-Business Organization
Every accountant must know at least the elementary legal problems of business. Entries that he will make on the books, often the statements he must prepare for a client or for his own business, will be affected by legal points involved in interpreting contracts, partnership agreements, the by-laws of corporations, or other forms or legal documents.

Special Lectures on Business Subjects. A knowledge of general business problems and practice is indispensable to every accountant. For that reason you will, from time to time, receive lectures on general business subjects which you will find helpful as well as interesting. These lectures are in booklet form and cover such subjects as:

> Graphic Charts for the Business Man
> The Regulation of Corporations
> The Detection of Fraud
> The Employment Department and Employe Relations
> Analysis of Financial Statements

You will receive more than twenty of these lectures by authors who are leaders in their respective fields, and whose work is authoritative. They will be of great value in familiarizing you with modern business practice, which, of course, is very essential to your success.

## OTHER SPECIAL FEATURES OF THE COURSE

The Consultation Privilege. It is important that you keep in mind your consultation privilege. We want you to make use of it whenever you feel that the instructors of the Higher Accountancy Department or any of the experts of other departments of the University can be of service to you.

Special C. P. A. Training. Besides your consultation privilege you will be entitled to receive upon graduation, not only your diploma but also a
special training course which is in the nature of a postgraduate course for those planning to take the C.P.A. examination. You are also entitled upon graduation to a special elective treatise on accounting for any particular line of business in which you may be especially interested.

LaSalle Service. The instruction service and the consultation privilege are the real personal element of LaSalle service. This service is made to fit your individual requirements and is rendered to you personally and direct by your instructors and the consultation staff of LaSalle Extension University.

Take advantage of this service whenever any part of your work is not perfectly clear. Master each lesson as you go; do not allow an accumulation of points that you are not clear on, to pile up on you-this will slow up your progress more than you may realize. So clear the way as you go. Never be content to pass a point you fail to understand-it may be vital.

## THE STARTING POINT

Your work will begin with "The Balance Sheet" in Lesson 1, and "The Profit and Loss Statement," Lesson 2. These are important business statements which every business man wants to see. The man in business who employs an accountant needs no detailed knowledge of accounting operations to understand these statements and their uses. We want you to interpret them as a business man would and appreciate clearly their immense importance to successful business management.

## HOW TO PROCEED WITH THE WORK

Assignment. You are now ready to attack the lessons vigorously. Give Lesson 1 a thoro reading, aiming to get not only a detailed knowledge, but also a broad survey of the subject treated. Fix in mind the central idea in each paragraph.

After you have read carefully this assignment-and fully understand all points presented-prepare solutions to the problems, following the instructions given.

These problems are practical business cases; they involve questions which the man in business or his accountant must meet and master. In working with them, you are equipping yourself in the best possible way to meet successfully other problems in business. You are obtaining PRACTICAL EXPERIENCE of the best possible kind in your chosen work. You are gaining an experience which you will often be able to use and capitalize in your daily work-an experience which also fits you for the bigger job ahead. You are getting this experience, this ability to apply your knowledge, under the helpful guidance of the accountants on our staff.

Practical Solutions. With the return of your lessons, the University will send you practical solutions for the problems. These solutions have been carefully prepared by our expert accountants. They will show you the best form to follow in preparing subsequent work. In each case, these
solutions will prove a most valuable guide. Carefully studied and followed they will be among the most effective aids in your mastery of Higher Accountancy and your advancement in the business world.

Read carefully the instructions given you on the inside page of your binder cover. These are important and will be found valuable if carefully followed.

Your successful training now depends largely upon YOURSELF. Send in your written work and consult with your instructors. They will give you sympathetic and helpful suggestions. Depend upon them and consult them frequently. And keep in mind always that there is nothing you cannot have-no success is going to be denied you-if you but have the GRIT, the DETERMINATION, and the PERSISTENCE to win.

Assignment 1 follows. May we have your written work in a few days, so that we can tell just how you are getting along?

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# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assignment 1 <br> THE BALANCE SHEET

QUOTING from the Journal of Accountancy, the authoritative organ of the professional accountants of the United States:

*     *         * the accounting profession is probably the best paid in the world. If there be a profession in which the average compensation is higher, it is not known to us.

There is need for accountants. There is ample compensation for accountants. There is no prospect that the supply will overtake the demand within the lifetime of even the youngest of $u s$.

## LaSalle Extension University Chicago

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

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25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignaments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## THE BALANCE SHEET

## A STATEMENT OF THE FINANCIAL CONDITION OF A BUSINESS

Wherever you are and whatever you may be doing, you are in direct contact with business. Look about and see if this is not true.

You are daily giving up values that you possess for other values that you desire to obtain. When you go into debt, you receive either commodities or services in return. When you write a check or issue a promissory note, you are doing business. When you agree to work for your employer, you promise to give him your services, and he in turn assures you a fixed amount of income. He is buying, and you are selling. This we call business, because both of you enter into the agreement primarily to make profit. Business is all about you. The newspapers and magazines bring the news of business right into your home.

No one is closer to business than you are. No one, therefore, has a better opportunity to study it.

As you begin this training in Higher Accountancy, start with us right where you are. Your intimate relation with business and your general knowledge of business transactions will make it easy for you to begin this study. As you proceed, you will learn, step by step, how to record and analyze business transactions. This is primarily the work of the bookkeeper and the accountant.

It is practically impossible to draw a sharp dividing line between the work of the bookkeeper and the duties of the accountant. Very often the bookkeeper must also act as the accountant, but where the business is large enough, the two fields are definitely separated.

What the Bookkeeper Does. The bookkeeper records the transactions that affect the business. He keeps the books. He also tests the correctness of his work frequently, and sometimes he is required to make out the financial statements.

What the Accountant Does. The accountant designs the records in which the bookkeeper makes his entries. He installs new systems of accounts, or improves those already in use. He audits the records. He makes periodic summaries from the ledger in order that the proprietor may know the financial condition of the business. He also makes monthly reports of the progress of the business. From the data collected by the bookkeeper, the accountant determines the cost of manufacturing and the cost of operation. He is expected to show departmental costs and profits. He should discover the leaks in a business, and he is expected to give advice on how the profits can be increased.

Briefly stated, bookkeeping is the recording of business transactions; accounting consists of an analysis and interpretation of these records.

Accounting as an Aid to Business. Modern accounting is an essential and practical aid to business, not only because it provides for an accurate record of every transaction, but also because from this detailed record it produces reports or statements of business conditions and operations. These reports are made out as often and as elaborately as the proprietor or manager desires them. They can be analyzed and compared with statements of previous periods. Losses and gains can be determined quickly and accurately. Moreover, the future policies of a business can thus be intelligently controlled and directed. Inefficient methods and unnecessary expenses can be eliminated, costs reduced, and profits increased when these reports of the accountant are properly set up and analyzed.

If the accountant is to submit reports like these in an intelligent manner, he must first of all become thoroly familiar with accounting practice. What is more, he must acquire a general understanding of business problems, which he attempts to solve for the business man.

One of the many important problems that confront every business, whether large or small, is the difficulty of knowing its exact financial condition. Managers and proprietors are usually so actively engaged with the direction and operations of the business that they often haven't the time, and many haven't the ability, to determine with any degree of accuracy just what the financial condition of their business is.

Here is where the accountant gives valuable service. From the records he sets up what is called a balance sheet-a summary statement in which he lists on the left side everything the business owns, and on the right side everything the business owes to outsiders. The difference between the two sides, or the amount which must be added to the right side to make the two sides balance, represents the NET WORTH of the business. If the business owes more than it owns, then the balancing figure is called "deficit."

## THE BALANCE SHEET IN ACTUAL BUSINESS

To illustrate the form, the underlying principle and the important uses of the balance sheet, we shall introduce you into the actual operations of a trading concern. The business that we have selected is the Johnson Mercantile Company, of which Mr. Johnson is the sole proprietor.

How Mr. Johnson Started His Business. He started a retail dry goods store in May, 1917, with $\$ 30,000.00$. He bought a building and lot in a desirable location for $\$ 20,500.00$. The lot was valued at $\$ 5,500.00$ and the building at $\$ 15,000.00$. The building was too large for the immediate use of the business, so Mr. Johnson rented space on the second floor, thus realizing extra income on his investment. In buying this property he paid $\$ 12,500.00$ cash and gave a mortgage for the balance, $\$ 8,000.00$. This mortgage was payable in five years. He could have paid for the property in cash, but in this way he would have reduced his working capital too much.

He bought show cases, shelving, cabinets, office furniture, and other necessary equipment amounting to $\$ 4,500.75$ and paid cash for them. He also found that he needed a delivery truck and purchased one for $\$ 2,100.00$, paying $\$ 500.00$ down and giving a note for the balance.

Most of his merchandise was bought on 60 and 90 days' time. He sold to customers both on account and for cash. He found that it was occasionally desirable to require notes from a few customers who wished an extension of time. On December 31, 1921, he had $\$ 2,500.00$ worth of such notes on hand.

Johnson's Business Policy. His accounts with customers on December 31,1921 , totaled $\$ 13,404.35$, which indicates that he did a considerable amount of his business on a credit basis. His accounts with creditors amounted to $\$ 12,472.90$.

Mr. Johnson gave fair consideration to his customers in case goods were defective. If they returned the goods, he usually gave them credit and adjusted his books to show the sales returns. During the four years he had built up a prosperous business. In 1921, according to his last statement, he made a net profit of $\$ 5,100.00$, which was 17 per cent on his original investment and over 7 per cent on sales. His total sales for 1921 amounted to $\$ 70,141.22$. In all his merchandising Mr. Johnson preferred to handle the better grades of stock. He dropped wholesalers who furnished the poorer grades and took on others who could supply him with dependable goods, because he felt that satisfied customers were one of the best advertisements.

He also watched operating expenses closely. His business required one accountant and two clerks. Mr. Johnson did the buying and financing. Whenever it was necessary to secure loans from the bank, he always presented the request himself, with all the necessary papers and statements.

The Underlying Principle of the Balance Sheet. In order to understand better the balance sheet of the Johnson Mercantile Company in the form in which an accountant would draw it up, it will be well first to get at the underlying principle behind the balance sheet by considering a few simple forms which require no accounting knowledge to comprehend.

From the description we have already given of this business, Figure 1 needs little, if any explanation. It merely lists on one side of the sheet all the property the company owns and on the other all the debts of the company.

The total on the left side is larger than the total debts. The amount of difference between the values owned, $\$ 64,330.83$, and the total debts, $\$ 23,472.90$, is what Johnson could really claim for himself. The net worth is $\$ 40,857.93$, which is the amount necessary to make the two sides balance. This represents Johnson's equity in the business.

## EXPLANATION OF "ASSETS"

All the values that the Johnson.Mercantile Company had a title to and controlled are termed assets. This is true in the case of any business. Let us explain further:

Cash. On December 31, 1921, the company had cash amounting to $\$ 5,450.10$. This amount included not only the actual cash in the office and the money on deposit in the bank, but also all checks in the cashier's drawer. Cash is an asset, therefore, because the business possesses it and controls it.

Accounts Receivable. Under this item are included all amounts due the business from customers who bought goods on account. The total outstanding here was $\$ 13,404.35$. Statistics indicate that about 80 per cent of all business to-day is transacted on a credit basis. Merchandise is sold to customers on good faith, and these accounts receivable are values owned by the business, because they represent a claim of the business against outsiders.

| Everything the Company Owns and Controls | Everything the Company Owes |
| :---: | :---: |
| Cash . . . . . . \$ 5,450.10 | Purchased on Account . \$12,472.90 |
| Due from Customers . . 13,404.35 | Notes Held by Outsiders |
| Notes Receivable . . 2,500.00 | against the Business 3,000.00 |
| Merchandise on Shels . 15,875.63 | Mortgage on Property - 8,000.00 |
| Furniture and Fixtures 4,500.75 | Total Debts . . . $\$ 23,472.90$ |
| Delivery Equipment . . 2,100.00 | Balance: |
| Building . . . . 15,000.00 | Net Worth . . . . 40,857.93 |
| Land . . . . . . 5,500.00 |  |
| \$64,330.83 | \$64,330.83 |

The Balance Sheet in Popular Terms
Figure 1. Here you have a very simple balance sheet. You will see at a glance that everything the business owns is listed on the left side of the balance sheet and everything the business owes is listed on the right side. It is reproduced here, not because practicing accountants set up a balance sheet in this form, but merely to indicate the fundamental principle underlying the balance sheet.

Notes Receivable. This item, which amounts to $\$ 2,500.00$, means that the business had received notes from customers to this amount. The company holds these notes as claims against the customers.


The Balance Sheet in Accountina Terms
Figure 2. There is no difference between the statement shown here and the one shown in Figure 1 except that here accounting terms are used, while in Figure 1 the various items are expressed in the simplest terms of ordinary business. Familiarize yourself thoroly with the accounting terms used, because they will be referred to frequently.

Merchandise. This includes all the stock on hand belonging to the company, even tho a part of it may not yet be paid for.

Furniture and Fixtures. This item is self-explanatory of course and includes all the furniture and fixtures, valued at $\$ 4,500.75$, in the possession of the company. The delivery equipment consists of one delivery truck with a cost value of $\$ 2,100.00$, which is also an asset.

Building and Land. The building, worth $\$ 15,000.00$, and land, worth $\$ 5,500.00$, are assets, because the company holds legal title to them. It can do with this property whatever it wishes. It can sell or rent it to outsiders. To be sure, an $\$ 8,000.00$ mortgage was placed on the property when the company bought it, but legal title rests with the company. So we see that everything which the business has a legal claim to is an asset and is entered on the left side of the balance sheet. Now we come to the right side-the liabilities.

## EXPLANATION OF "LIABILITIES"

Briefly, whatever the company owes outsiders is a liability, as you will see from the list below:

Accounts Payable. The company has purchased, and on December 31, still owes for merchandise to the amount of $\$ 12,472.90$. The concerns which sold this merchandise expect to be paid for it in accordance with the terms of purchase. Therefore this is a liability.

Notes Payable. It has also borrowed money from the bank or given notes to trade creditors for a total of $\$ 3,000.00$. The bank and creditors hold these notes against the company, and therefore the company is liable.

Mortgage Payable. An indebtedness of $\$ 8,000.00$ in the form of a mortgage was assumed when the company began business, and so $\$ 8,000.00$ represents a claim upon the business.

## EXPLANATION OF NET WORTH OR PROPRIETORSHIP

Net Worth consists of two elements-net worth at the beginning of 1921 plus the profit for the year. The net worth amount for January 1, 1921, was taken from the balance sheet of December 31, 1920.

$$
\begin{aligned}
& \text { Johnson's Net Worth, Jan. 1, 1921....................... } \$ 35,757.93 \\
& \text { Profit for } 1921 \text {...............................................................00.00 } \\
& \text { Present Net Worth ....-........................................ } \overline{\$ 40,857.93}
\end{aligned}
$$

Mr. Johnson had a net claim on the business amounting to $\$ 40,857.93$. This is arrived at in another way by using the following:

$$
\begin{aligned}
& \text { Total Assets ....an } \\
& \text { Total Liabilities } \\
& \text { 23,472.90 } \\
& \text { Present Net Worth or Proprietorship................ } \overline{\$ 40,857.93}
\end{aligned}
$$

If it had been found desirable or necessary for the company to quit business on December 31, 1921, there would have been more than enough assets on hand to satisfy the liabilities, provided, of course, that they could be converted into cash without a loss.

Figure 3 shows the balance sheet as the accountant actually set it up. It conveys more information than the simple balance sheet shown in Figures 1 and 2, because both assets and liabilities are divided into two groups, current and fixed.


Account Form of Balance Sheet
Figure 3. By adding a few more accounting terms to those included in Figure 2 and then rearranging the accounts, we arrive at the above form which in practice is known as the account form of balance sheet. It differs from those shown in Figures 1 and 2 in that it goes a step further and classifies the assets and liabilities into two groupscurrent and fixed. This is a very important classification, the necessity for which will become readily apparent as you study the explanation given in the text.
Current Assets. Certain assets are readily convertible into cash. They will be converted into cash by their very nature. Examples, aside from cash itself, are accounts receivable, notes receivable, and merchandise. They are continually being affected by business transactions, and therefore vary from time to time in amount more than do those classified in the fixed group. The amounts change from day to day. Such assets are known as current assets.

For example, cash may be a large amount to-day and a very small amount to-morrow. Cash flows into the business and out again. Accounts receivable grow and diminish. The amount of notes receivable becomes larger as new loans are granted and smaller as they mature. Merchandise is sold every day and the stock is replenished frequently.

Current Assets are also called liquid, floating, or quick assets.
Fixed Assets. The items under Fixed Assets represent more permanent values, those that ordinarily do not change so greatly nor so quickly. They are essential to the continuation of the business, and are not so easily convertible into cash.

Furniture and fixtures are purchased for continued use, and are not disposed of until they are worn out or are no longer needed. Delivery equipment is bought for permanent use. It remains in the business longer than the current assets. Buildings and land remain in the business as long as the company needs them. You can easily see that they are more permanent than the current assets.

Most of these fixed assets, of course, depreciate in value. The decrease in their value, commonly called depreciation, is one of the operating expenses. The assets themselves, however, are considered permanent, so long as the business operates and needs them. For the sake of simplicity, we have ignored depreciation in setting up the balance sheets in this Assignment.

Current Liabilities. The current liabilities, likewise, such as accounts payable and notes payable, grow and diminish according to the volume of the business.

Fixed Liabilities. On the other hand, a mortgage payable is a fixed liability. It usually runs for a longer period of time, until it matures, when it is either paid off or renewed.


## The Report Form of Balance Sheet

Figure 4. Here is still another form of balance sheet, which has a definite purpose in accounting practice. Among accountants it is known as the report form. It was devised primarily so that it could be more easily interpreted by those unfamiliar with accounting practice. It is popular also because it can be prepared on a standard carriage typewriter. The main purpose of any balance sheet is to arrive at the net worth. Compare the procedure in this report form with that of the account form, and you will find that here the net worth is arrived at by ordinary arithmetic (total assets-total liabalities=net worth), while in the account form it is necessary to use a knowledge of accounting practice in order to balance both sides of the balance sheet.

The balance sheet in Figure 3 shows a form recognized and approved by accountants and business men. It is called the "account form." You can always refer to it as a model in setting up the balance sheets in your problems. Note especially the heading-name of business, "balance sheet," and date. Without the proper heading, a balance sheet has neither meaning nor value.

The Report Form of the Balance Sheet. The report form of the balance sheet which is shown in Figure 4 is another recognized form of the balance sheet. It is popular because it is more readily understood than the account form by persons not familiar with accounting. The net worth amount appearing at the bottom of the statement is easily determined. Total liabilities are subtracted from total assets in the ordinary arithmetical method to determine net worth, instead of balancing the two sides as in the account form.

## SIMPLICITY OF THE BALANCE SHEET

The principle of Johnson's balance sheet is just as simple and easy to understand as the equation which you learned in the grades:

$$
\begin{aligned}
& \$ 100-\$ 25=\$ 75 \\
& \text { Assets-Liabilities=Net Worth }
\end{aligned}
$$

Take another simple illustration: When you are ready to build your own home, you may need to borrow some money. You find that your house will cost $\$ 10,000.00$, and you have only $\$ 5,500.00$ cash. If you proceed in the same way as most people do, you will arrange for a loan for the balance, $\$ 4,500.00$, and the man who grants you the loan takes a mortgage or claim on your house. You are indebted to him for this amount, even tho you hold legal title to the property. Your net claim in the house will be determined thus:

$$
\$ 10,000.00-\$ 4,500.00=\$ 5,500.00
$$

The $\$ 5,500.00$ represents your proprietorship, or net worth. It is the difference between the total cost of the house and your liability, $\$ 4,500.00$. Apply this same principle to the balance sheet of the Johnson Mercantile Company and you will have the equation which is graphically presented in Figure 5.


The Proprietorship Equation
Figure 5. The making up of a balance sheet for the purpose of arriving at the net worth is merely a matter of arithmetic, as is indicated above. What complicates the procedure for some is the accounting principles and practice which must be brought into play before the figures can be subjected to this simple equation. The explanation of these principles and practices is reserved for future assignments. The main point to consider here is that the purpose of all accounting is to simplify business records and reduce them to simple equations such as the above.

It is evident that the proprietor can claim what is left after all debts to outsiders are paid.

## PRACTICAL PROBLEMS ILLUSTRATING PROPRIETORSHIP EQUATION

Every transaction that affects the business, ultimately affects the balance sheet also. You could make a balance sheet after each transaction if you wished. This would involve a great amount of work, however, and is not desirable. In order to bring out the exact procedure involved, we shall present a series of simple transactions to illustrate what we mean. An exact balance is maintained between the two sides of the equation at every step.

Transaction 1. On February 2, 1921, Mr. A. B. White has $\$ 2,000.00$ in the bank, with which he decides to go into business.
Equation 1.

> Assets $\quad$ Net Worth
> $\$ 2,000.00=\$ 2,000.00$

His Net Worth equals his total assets, $\$ 2,000.00$.
Transaction 2. February 2, he pays $\$ 50.00$ rent for his store. This is an operating expense, not an investment.
Equation 2.
Cash Net Worth $\$ 1,950.00=\$ 1,950.00$
Assets are decreased $\$ 50.00$.
Net Worth is decreased $\$ 50.00$.
Transaction 3. February 3, he buys show cases for $\$ 150.00$. (This purchase is a capital investment, not an operating expense, which will also be explained in Lesson 2.)
Equation 3.
Show Cases \$150.00
Net
Cash $\left.\begin{array}{c}+ \\ 1,800.00\end{array}\right\}=\begin{gathered}\text { Worth } \\ \$ 1,950.00\end{gathered}$
One asset is increased $\$ 150.00$.
Another is decreased $\$ 150.00$.
Net Worth remains the same.


Transaction 4. February 4, he buys stock worth $\$ 500.00$ for cash.
Equation 4.
Show Cases


One asset is increased $\$ 500.00$. Another is decreased $\$ 500.00$.
Net Worth remains the same.
Transaction 5. February 5, he buys $\$ 200.00$ worth of stock on account.
Equation 5.
$\left.\begin{array}{lr}\text { Show Cases } & \$ 150.00 \\ & + \\ \text { Stock } & 700.00 \\ & + \\ \text { Cash } & 1,300.00\end{array}\right\}=\left\{\begin{array}{c}\text { Accounts } \\ \text { Payable } \\ \$ 200.00 \\ + \\ \text { Net } \\ \text { Worth } \\ \$ 1,950.00\end{array}\right.$
Assets are increased $\$ 200.00$.
Liabilities areincreased $\$ 200.00$.
Net Worth remains the same.
Transaction 6. February 7, he buys $\$ 300.00$ worth of stock and gives a note.
Equation 6.

Show Cases $\$ 150.00$
Stock
Cash
$\left.\begin{array}{c}\$ 150.00 \\ + \\ 1,000.00 \\ + \\ 1,300.00\end{array}\right\}=\left\{\begin{array}{c}+ \\ \text { Accounts } \\ \text { Payable } \\ \$ 200.00 \\ + \\ \text { Net } \\ \text { Worth } \\ \$ 1,950.00\end{array}\right.$

Assets are increased $\$ 300.00$.
Liabilities are increased $\$ 300.00$.
Net Worth remains the same.


Transaction 7. February 7, he sells for cash, stock for $\$ 30.00$ that cost $\$ 20.00$. On this transaction he makes a gross profit of $\$ 10.00$. (This will also be fully explained in Lesson 2.)


One asset, stock, is decreased $\$ 20.00$.

Another asset, cash, is increased $\$ 30.00$.

Net Worth is increased $\$ 10.00$.
We have given you transactions of the simplest kind. As you proceed in the course you will have others, but these few show clearly that the proprietorship equation is affected each time that Mr. White transacts business.

Whenever he buys and sells, his assets, liabilities and net worth are changed to a greater or lesser degree. This could be illustrated still further by transactions that involve sales discount, purchase discount, interest paid, interest earned, payment of taxes, insurance, etc. Every transaction, no matter how small, that affects the business, will also affect certain elements in the proprietorship equation at that particular moment, and these changes will ultimately appear in the balance sheet.

The balance sheet is a summary of the numerous transactions of a period. It simply shows the condition of a business at a certain time without indicating how that condition came about. It may show an increase or decrease in net worth, but does not indicate in any way what caused this change. The accountant prepares other statements in which he discloses the causes of profits and losses. The balance sheet shows the condition not the progress of a business.

So important is the balance sheet that business could scarcely be conducted without it. The following five uses to which it is constantly being put will explain its important relation to business.

## 1. RELATION OF THE BALANCE SHEET TO BUSINESS CONTROL

What persons are most interested in the balance sheet of the Johnson Mercantile Company?

The proprietor, first of all. He uses it in three ways:
First: He can see at a glance whether his net worth has increased or decreased, by comparing the net worth of December 31, 1921, with his net worth January 1, 1921. That is what he wishes to know. If his net worth is less at the end than it was at the beginning of the year, he is certain that his business has not been progressing as it should. If it is more, then he knows that his business is growing.
Second: He can better control his business in the future. He can compare the total current assets with the total fixed assets to determine whether or not too much capital is tied up in the permanent investment. He will also consider the amount of merchandise on hand. This may be too large or too small. If his sales have been slow, he will decide to reduce prices, to advertise more widely, and to reduce his stock.

Third: He can determine how best to meet his liabilities. Liabilities may be due in a very short time, and he will need cash with which to pay them. He may find that it is necessary to take some of his notes receivable to the bank and have them discounted, so as to get the necessary cash.
He may, however, determine that he can borrow money from the bank to meet the immediate obligation and tide him over until increased trading will bring in more cash, with which he can pay his new liability. He probably discovers that the Accounts Receivable amount is too large, and therefore he will press collections from customers, or demand notes to cover their accounts, so that he can discount the notes at the bank. He may even decide to sell part of his accounts receivable at a discount to some broker and obtain enough cash in this way.

Thus you will see that the proprietor will be able to proceed more intelligently when he has the information a balance sheet furnishes.

## 2. BALANCE SHEETS NECESSARY IN MAKING LOANS

Here is what actually happened in the Johnson Mercantile Company. On January 21, 1922, the company owed the Southern Woolen Mills $\$ 4,500.00$, which it must pay within ten days in order to take advantage of a 2 per cent discount. The company did not have this amount of cash available, so Mr. Johnson looked over the balance sheet of December 31, 1921, set up in such a form that he could determine whether or not the Johnson Mercantile Company was in a position to borrow money from the National Exchange Bank, if it were necessary. The balance sheet showed cash on hand, $\$ 5,450.10$. But the amount of cash on hand January 21 was even less, because of recent disbursements. He found that it would be necessary to borrow from the bank. What did he do? He proceeded to do exactly what he knew the credit officer of the bank would do. He compared the total current assets with the total current liabilities. He found that the current assets amounted to $\$ 37,230.08$ and the current liabilities amounted to $\$ 15,472.90$. The proportion was better than 2 to 1 . In other words, those assets that could be realized on easily, outbalanced those liabilities that would demand payment in a short time.

With this information Mr. Johnson went to the bank, feeling reasonably sure that he would be able to secure a loan. He presented his request
for a loan of $\$ 2,000.00$, since he thought this would be sufficient, and gave the bank the balance sheet. He also gave the bank a list of his customers' balances, with due dates in each case. Within a short time he was notified by the credit officer that he could have the money. The bank was assured from the balance sheet that the company was operated intelligently and in accordance with correct business methods. The banker is always interested in knowing whether his paper can be liquidated out of the current assets, and in this particular case he knew that this was possible.

If the bank had found that the current assets were just about equal to, or less than, the current liabilities, it would probably have refused the loan, even though the fixed assets were of large amount.

## 3. TRADE CREDITORS ALSO DEMAND BALANCE SHEETS

Let us go a little further into the actual operations of the Johnson Mercantile Company, to see how creditors use the balance sheets of their customers.

In the early part of February, 1922, a salesman visited the company. He represented the New York Merchandising Company and was selling an attractive line of merchandise. The Johnson Company had thus far been buying most of their stock from a St. Louis house, but the salesman finally persuaded Mr. Johnson to give him an order for $\$ 6,500.00$ worth of goods, on sixty days' time. On February 11, a letter came from the New York house, thanking the Johnson people for their order and promising prompt delivery.

Why was the New York company so willing to grant credit to its new customer? Simply because it knew that the current assets would cover this risk.

As soon as the salesman had secured the order, he filled out a report, in which he indicated the general financial condition of the Johnson Company. The New York company immediately turned over the order and the report to its credit department, which at once set to work to determine whether the credit should be given. This department analyzed the report; but since it showed only the present condition of the Johnson Company, they referred to mercantile agency reports to get the financial rating of the Johnson Company. The rating given there had been determined by an analysis of the balance sheets of previous years, or from other information furnished by the Johnson Company.

The result of the investigation was favorable. Credit was allowed because the rating of the Johnson Company was good.

## 4. BALANCE SHEET NECESSARY WHEN BUSINESSES ARE MERGED

Here is a practical case that illustrates another important use of the balance sheet. On March 6, 1922, the Smith Enterprise Company, the strongest rival in the same city with the Johnson Merchantile Company, proposed that the two concerns merge into one. The Smith people argued that expenses could be reduced, the total investment would be considerably increased, and the business administration of both concerns, when
combined, would create a strong business organization. Moreover, existing competition could be eliminated.

The first and the most important step in the undertaking was an exchange of balance sheets between the two companies. New balance sheets were set up on March 6, 1922, because those of December 31, 1921, did not show the facts as they existed three months later. Of course other documents and reports were exchanged, but probably none proved so important and none were so thoroly analyzed as the balance sheets.

The Johnson Mercantile Company found that the current liabilities of the Smith Enterprise company were too large and the current assets too small to justify a merger. The result was that the Johnson Mercantile Company declined the offer, basing its decision on the balance sheet analysis.

## 5. BALANCE SHEETS NECESSARY FOR AUDITORS AND GOVERNMENT OFFICIALS

The records of any business cannot be relied upon as being absolutely correct unless they are audited at regular intervals. In the Auditing section of the Higher Accountancy course, you will learn how the auditor checks up and verifies the balance sheet items. The amounts given in the balance sheet must agree with the facts as they are determined by actual count and by the audit of the records.

When the Federal Tax returns are made, important information is taken from the balance sheet, and when the government verifies the tax report, it requires that the balance sheet be submitted along with other reports.

## THE IMPORTANT POINTS OF THIS ASSIGNMENT

Now that you have followed our discussion of the balance sheet, we suggest that at this point you recall and emphasize the big fundamental ideas as they have been explained and illustrated in Assignment 1. The following main points are of prime importance:

First. The balance sheet is a barometer by which the financial condition of a business can be determined. It pictures the financial condition of a business.
Second. It is set up in a standard form. Assets and liabilities are classified.
Third. Every business transaction, no matter how small, will affect the balance sheet.
Fourth. The balance sheet is a valuable aid to business.

1. It shows the proprietor and manager where the business is strong and where it is weak.
2. It helps bankers to grant loans intelligently.
3. It aids trade creditors in allowing credit to customers.
4. It is used by concerns contemplating mergers.
5. It is made the basis of investigation by auditors and government officials.
Because the balance sheet is of such great importance to business, we have begun the study of accounting with the balance sheet. Affairs in business as well as in accounting practice center around it.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 1

Use the ruled paper which the University has furnished you, and prepare and send in solutions for the following practcial problems.

Problem work of this sort will be given you at the end of each assignment. These problems arise in actual business and thru understanding and mastering them you are gaining the ability to successfully meet and master similar situations that arise in business.

## SPECIFIC INSTRUCTIONS

In analyzing and working out these problems, as well as those in subsequent assignments, follow carefully the following instructions:

1 Use extreme care at all times.
2 Do not attempt to solve the problems until you know thoroly what is in the Assignment.
3 Use pen and ink; or typewriter if convenient.
4 Number each page of your work. It is a wise precaution also to put your name and the assignment number on each page of your work.

5 Observe also very carefully the directions on the slips marked IMPORTANT, a number of which are inclosed with your assignment material.

6 Do not fail to use one of these slips-filling in your name, address, and matriculation number very plainly whenever you submit work for examination.
7 Read and observe carefully the directions given on the inside cover of your binder.

## PROBLEMS

1. On June 30, 1921, the records of the C. O. Law Coal Company show the following assets and liabilities:
Coal on Hand \$3,700.00
Accounts Payable 2,200.00
Notes Receivable 1,200.00

Mortgage Payable 4,000.00

Notes Payable. 1,545.00

Coal Yards and Sheds
8,000.00

Furniture 320.00

List all assets in one column and all liabilities in another.
2. Mr. Law wishes to know his net worth on June 30, 1921. Show this in a proprietorship equation.
3. On July 7, 1921, Mr. Law finds that he must borrow \$2,000.00 from the bank. He asks you as his accountant to prepare a statement of the financial condition of his business on June 30, 1921. Prepare the balance sheet in the account form, listing the items in four separate groups:

Current Assets
Fixed Assets

Current Liabilities
Fixed Liabilities
(a) Send in the balance sheet.
(b) Do you believe the bank will make him a loan? State the reasons for your answer.
4. On March 31, 1921, Mr. L. M. Strong opens a furniture store.
(a) He immediately deposits $\$ 2,000.00$ in the bank as his original investment in the business.
(b) April 1, he pays $\$ 50.00$ for rent.
(c) April 2, he buys $\$ 1,000.00$ worth of furniture, on account, from the Chicago Furniture Company.
(d) April 5, he sells furniture, for $\$ 75.00$ cash, that cost him $\$ 50.00$.
(e) April 7, he pays $\$ 20.00$ for clerk's salary.
(f) April 8, he issues a 30-day note covering his account with the Chicago Furniture Company.
Analyze each transaction, showing in each case the amount of increase or decrease for assets, liabilities, and net worth.

For example, under (a) and (b) you will state your answer thus:
(a) Increase in assets, $\$ 2,000.00$.

Increase in proprietorship, $\$ 2,000.00$.
(b) Decrease in assets, $\$ 50.00$. Decrease in proprietorship, $\$ 50.00$.
5. On December 31, 1921, the accountant for the James Walters Hardware Company is asked to make a balance sheet for the proprietor.

He finds that the company has Cash, $\$ 3,994.57$; Merchandise, $\$ 21,450.80$; Store Fixtures, $\$ 2,555.00$; Notes Receivable, $\$ 1,700.00$; Auto Trucks, $\$ 2,500.00$; Buildings, $\$ 9,000.00$; Land, $\$ 14,500.00$; Stocks and Bonds bought for investment, $\$ 1,300.00$ (considered as a fixed asset) ; and Accounts Receivable, $\$ 6,210.35$.

It owes to outsiders: Accounts Payable, $\$ 15,461.20$; Notes Payable, $\$ 4,700.00$; and Mortgage Payable, $\$ 6,000.00$.

Assume that you are the accountant. Make the balance sheet in the account form, classifying assets and liabilities into proper groups.

# Higher Accountancy 

## PRINCIPLES <br> PRACTICE and <br> PROCEDURE

## Elements of Accounting Practice

## Assignment 2 <br> THE PROFIT AND LOSS <br> STATEMENT

ILOOK UPON modern accounting as a system by which a business is analyzed, its different parts weighed and measured, their relations one to another ascertained with precision, so that the centers of waste and weakness are laid bare and the way is made plain for continuous improvement. Here is a field for the exercise of a high grade of scientific insight and imagination.

Elmer E. BRown, Ph.D.
Former U.S. Commissioner of Education

# LaSalle Extension University <br> Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

```
    1. The Balance Sheet
    2. The Profit and Loss Statement
    3. The General Ledger
    4. Closing the Ledger
    5. The Journal
    6. Closing the Ledger by Journal Entry
    7. The Cash Journal
    8. Merchandise Records-The Purchase and Sales Journals
    9. Subdivision of the Ledger
    10. Columnization
    11. Pronissory Notes
    12. Drafts, Acceptances, and Bills of Lading
    13. Auxiliary Cash Records
    14. Other Auxiliary Books and Business Papers
    15. Finding, Correcting, and Preventing of Errors
    16. Accrued and Deferred Items
    17. Depreciation and Uncollectible Accounts
    18. Partnership Accounting-Formation-Operation
    19. Partnership Accounting-Dissolution Prorlems-Joint
        Ventures
    20. Corporation Accounting-Formation-Operation
    21. Corporation Accounting-Reorganizations-Mergers
    22. The Voucher System
    23. Factory Accounting-Mlanufacturing Statement
    24. Factory Accounting-Perpetual Inventory-Cost Sheets
    25. Classification of Accounts
    26. Single Entry
    27. Accounting for Nontrading Concerns
    28. Agency Accounts-Branches-Consignments
    29. Comparative Statements
    30. Analysis of Financial Statements-General Review
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## THE PROFIT AND LOSS STATEMENT

## A REPORT OF BUSINESS PROGRESS

You have seen how the balance sheet can be of real value to the manager of a business. It is a sort of barometer by which the financial condition of a business is determined.

The balance sheet, however, can give only part of the information desired. Pusiness men want to know not only how the business stands financially, but also whether it is making a profit or running at a loss.

When a profit has been made, business men want to know what factors produced it, so that in the future they can expand their business along those lines that appear to be most profitable.

If a business has operated at a loss, the business man certainly should have a detailed statement as to the causes: such, for example, as unnecessary expenses, careless purchasing, unscientific advertising, etc. For information like this, the balance sheet is, of course, inadequate.

Altho the balance sheet gives the amount of net profit, as shown in the balance sheet of the Johnson Mercantile Company in Assignment 1, it does not give any information on how this profit was made. It is necessary, therefore, that the accountant prepare another report, showing what income was received during the period and what expenses reduced this income to the net-profit figure. Such a report is commonly called a "Profit and Loss Statement."

There are four things which the accountant must consider in setting up a profit and loss statement in approved form. They are:

Income from Sales-to distinguish between gross sales and net sales.
Cost of Goods Sold-to determine gross profit or loss. Operating Expenses-to be deducted from gross profit. Miscellaneous Income and Expense-transactions outside of the regular business operations.
Income from Sales. In any trading concern, the chief source of income is from sales of merchandise. The total sales for a period are called "Gross Sales," and differ from "Net Sales" by the amount of any returned goods or allowances made to customers.

Cost of Goods Sold. After the net sales have been determined, it is necessary to consider what these goods cost the proprietor. This cost, whatever it may be, is deducted from the net sales, leaving "gross profit," which is the profit realized on the sale of merchandise before any of the operating expenses are considered.

Operating Expenses. This term covers such items as salaries, office expense, rent, taxes, heat, light, insurance, delivery expense, loss on bad debts, etc. The total expense is deducted from the gross profit in order to determine "net operating profit" or loss.

Miscellaneous Transactions. There are often transactions outside of regular operations that must be considered before one can determine the final net profit. For example, it may be necessary for the proprietor to pay interest. The amount spent for interest should be deducted after the net operating profit is determined. There is also a possibility of receiving income from sources other than sales. The proprietor may rent a part of his space or he may receive interest, thus realizing an income which is outside the regular trading operations. This income must be added. The result is "net profit" or loss.

The Profit and Loss Statement in Actual Business. The accountant for the Johnson Mercantile Company prepared a standard profit and loss statement in which he listed income from sales, cost of goods sold, operating expenses, miscellaneous transactions, and finally the net profit. This profit and loss statement is reproduced in Figure 1, and illustrates three important points with which the accountant must be fully familiar.
I. The form of the profit and loss statement-its general outline and construction.
II. The details that make up each section.
III. Some ways in which the profit and loss statement may be used by business executives.

## THE FORM OF THE PROFIT AND LOSS STATEMENT

The items checked ( $\sqrt{ }$ ) in the profit and loss statement shown in Figure 1 are items with which you are already more or less familiar from your own business experience. You will find that they are as follows:

| Gross Sales |  |
| :---: | :---: |
| Returned Sales | 447.2 |
|  |  |
|  |  |
|  |  |
|  |  |
| Net Operating Profit. $\qquad$ \$ 6,042.75 Income from Transactions Outside the Regular Operations $\qquad$ |  |
|  |  |
|  |  |
| Net Profit for Year............................................................ $\$$ \$,100.00 |  |

You begin with the selling price, subtract the cost of goods sold and the operating expenses, and then add other income and subtract other expenses.

## Johnson Mercantile Company <br> PROFIT AND LOSS STATEMENT

For year ended Dec. 31. 1921


## I. The Report Form of the Profit and Loss Statement

Figure 1. This is a generally accepted form of profit and loss statement and is arranged in what is called the "Report" form. Notice how the important information is arrived at in a step-by-step order and how the amount of profit (or in some cases loss) is arrived at as the final step in this process.

## II. DETAILS OF THE PROFIT AND LOSS STATEMENT

Thus far you have considered the totals as they appeared in the statement. It is necessary to understand how these totals are determind. The profit and loss statement contains four general sections, each of which corresponds to each of the four factors, in determining net profit, as given on page 1.

1. Sales
2. Cost of Goods Sold
3. Operating Expenses
4. Miscellaneous Income and Expense

When Mr. Johnson studies the statement for the purpose of controlling his business, the detailed information of each section is very important.

Sales. The first item in the Sales section is gross sales. From this amount is deducted the total sales returned for which customers have received credit or cash. Sales may be returned because the goods were damaged in transit, were of short weight, of different grade than those ordered, or for various other reasons. The total sales amounted to $\$ 70,141.22$. Of this amount $\$ 447.25$ worth of goods was returned, leaving a net amount of $\$ 69,693.97$.

A clear distinction should be made between sales returned and sales allowances. Sales returned indicates that the goods were actually returned. Sales allowances means that the customer is merely allowed credit, or partly reimbursed with cash, and does not return the goods. During the year the Johnson Mercantile Company took back goods worth $\$ 447.25$ but did not make any allowances to customers for goods which were not returned. Sales allowances would be deducted from total sales in the same way as sales returned.

Cost of Goods Sold. After the amount of net sales has been determined, it is necessary to find the actual cost of the goods sold. This figure is determined by adding the net purchases to the inventory at the beginning of the period and subtracting the inventory at the end of the period. The inventory at the beginning of the period is called "previous inventory," and the inventory at the end of the period is called "current inventory." Mr. Johnson had a previous inventory of $\$ 12,449.27$. During the year he purchased $\$ 46,0000.00$ worth of goods, of which amount he returned $\$ 1,000.00$, leaving a net amount of purchases of $\$ 45,000.00$. If he had $\$ 12,449.27$ worth at the beginning and made $\$ 45,000.00$ net purchases, he will have a total of $\$ 57,449.27$ to be accounted for. Of this total, $\$ 15,875.63$ still remains as the current inventory. By subtracting this amount from the total to be accounted for, you can determine the actual cost of the goods which were sold, $\$ 41,573.64$. The selling price was $\$ 69,693.97$; the difference between these two amounts, $\$ 28,120.33$, is the gross profit.

Operating Expenses. If the proprietor of a business owned his own store, were his own salesman and his own bookkeeper, delivered all merchandise himself, had neither taxes nor insurance to pay, needed no light or fuel, and made no repairs, then he would have few if any operating expenses. The gross profit would then be the net operating profit.

The modern proprietor, however, employs salesmen to sell goods, spends money for advertising, pays an accountant to keep the records, and goes to still further expense in delivering goods to customers. He also pays for heat, light, taxes, insurance, etc. All such expenses are called operating expenses, because they result from the trading operations.

Expenses reduce net worth. Incomes increase it. Expense is an outlay for values that do not remain long in the business, whether paid in cash or not.

A clear distinction should be made at this point between expenses for operating the business and "capital expenditures," which increase the investment in fixed assets.

For example, is the purchase of equipment, such as an office desk, a typewriter, a dictaphone, filing cases, or a delivery truck, an expense? Or is it an increase of investment? Cash may be paid for these items: in that case cash is decreased. But is net worth decreased as well? Not unless the values acquired are used up, that is, do not remain in the business after the close of the period. Equipment does remain. Purchases of equipment, therefore, are not considered as expenses but as capital expenditures.

The operating expenses of the Johnson Mercantile Company for the year 1921 amounted to $\$ 22,077.58$, as shown on the profit and loss statement. On the books of the company the operating expenses are classified into three groups:

1. Selling Expenses
2. Administration Expenses
3. General Expenses

The total for each of these groups is shown on the statement.
Selling expenses include all items such as salesmen's salaries, delivery expenses, loss on bad debts, expenses for window decoration, and advertising.

Under administration expenses are included all outlays for office salaries and office expenses, such as postage, telephone, stationery, and supplies.

Under general expenses are included insurance, taxes, and all other expenses which are necessary in operating the business and which cannot be charged exclusively either to selling or to administration.

On the books of the company a separate record is kept for each of these expenses, so that at the end of the period they can be shown separately in the profit and loss statement, and the total amount for operating expenses be determined. The total operating expense is then deducted from the gross profit to determine the net operating profit. The statement of the Johnson Mercantile Company shows a net operating profit of $\$ 6,042.75$.

Miscellaneous Income and Expense. The profit and loss statement provides a separate section for those transactions which are not essential to the regular trading operations. This section we have chosen to call "miscellaneous" income and expense. Other names may also be used, such as financial, incidental, sundry, other income and charges to income, nonoperating, etc.

You will note in the profit and loss statement of the Johnson Mercantile Company a total miscellaneous income of $\$ 825.00$. The detailed items making up this total are also shown. Of the $\$ 825.00$ total extra income, $\$ 40.00$ was interest earned on notes receivable. Since the building was too large for the immediate use of the company, Mr. Johnson rented out a part of the second floor to a firm of lawyers, for which he received $\$ 360.00$. Also all waste paper, collected thruout the year, was sold to a junk dealer for $\$ 50.00$. During the year several of the customers used the company's truck for moving their household goods, and for this service the company charged $\$ 125.00$. All these transactions were outside the regular business operations.

The company fortunately had enough cash on hand to take advantage of some of the discounts offered on goods purchased, and thus during the year saved a total of $\$ 250.00$. This was a financial earning rather than a reduction in the cost of goods purchased. These purchase discounts should not be confused with purchase allowances, which are deducted from the total purchases in the "cost of goods sold" section.

Naturally there were expenses as well as earnings outside the regular trading operations. The total of these expenses, as shown on the statement under the heading of "Charges to Income," was $\$ 1,767.75$. Of this amount, $\$ 700.00$ was interest on notes payable on the mortgage. Cash discounts amounting to $\$ 1,067.75$ were also allowed customers. Some accountants would not include sales discounts under miscellaneous expense, but would deduct them from sales along with sales allowances and returns. Later in the course this point will be treated more fully. For the present, sales discounts are considered among miscellaneous expenses. Sales returns, and sales allowances on the other hand, are deducted from gross sales.

The $\$ 825.00$ miscellaneous income and $\$ 1,767.75$ miscellaneous expense will result in a reduction of the profit to $\$ 5,100.00$, which is the net profit for Mr. Johnson's business during 1921.

## THREE DIFFERENT PROFIT ITEMS

You no doubt have already noticed that there are three different profit items, each of which not only has a definite place in every profit and loss statement but also affords important information to those responsible for the success of a business. The following brief statements will enable you to fix these three profit items in your mind; also the methods by which they are determined:

Gross Profit. The gross profit is the total profit before any expenses are deducted.

Net Operating Profit. Net operating profit is the gross profit less the operation expenses.

Net Profit. The net profit is the net income of the business after all operating and nonoperating transactions have been considered.

The profit and loss statement is set up with these general sections and subdivisions of detailed information for the purpose of giving Mr. Johnson the important information that he needs in order to determine the future policies of the business. The arrangement provides an intelligent analysis of business operations. Mr. Johnson is interested in knowing his gross profit as related to sales, his net operating profit, and his net profit. He can compare the various classes of operating expenses and can see whether any of them run too high for the year on the basis of sales. He can also make an intelligent study of the miscellaneous transactions which either increase or decrease the net operating profit for the period.

The accountant should exercise judgment in setting up a profit and loss statement and always have in mind what the proprietor of the business ought to know. It would be inadvisable to include too many drtails, because this would make the statement unnecessarily lengthy. Elough detail, however, should be included to support the totals which are shown. The statement should be complete, so that all the desired information is shown. Careful attention should also be given to the heading of the statement.

Proper Heading of the Statement. The profit and loss statement of the Johnson Mercantile Company is headed correctly. The name of the business is shown. We do not style it "Mr. Johnson's profit and loss statement," because this is a profit and loss statement of the Johnson Mercantile Company only. Mr. Johnson may have other interests.

The most common heading is simply "Profit and Loss Statement." You will find others in use, however, including:

> Statement of Profit and Loss Income and Profit and Loss Statement Statement of Income and Profit and Loss Revenue Statement Revenue and Expense Statement Income and Expense

The accountant should select a name which best suits the business for which he is making a statement. A railroad prefers the term "Revenue Statement" or "Income Statement." A public service corporation uses "Revenue and Expense Statement." Professional businesses and clubs often use "Income and Expense," but the simple heading "Profit and Loss Statement" you will find is adaptable to most businesses.

The period covered by the statement is also properly shown in the heading. A single date, such as December 31, 1921, would be misleading and incorrect, because the statement covers the period of one year and is not merely for a day. You would not date a profit and loss statement, then, in the same way that you date a balance sheet, which may be dated December 31, 1921, because it shows the facts as at the close of business on that particular day. The profit and loss statement, on the other hand, covers a period which must be indicated on the statement.

Having considered (1) the form of the Profit and Loss Statement and (2) the details of the Profit and Loss Statement let us now consider several important uses of the Profit and Loss Statement in business.

## III. FIVE IMPORTANT USES OF THE PROFIT AND LOSS STATEMENT

1. To Determine the Turnover of Stock. By "turnover of stock" is meant the number of times that the average inventory is turned over into cash or receivables by means of sales. If a store carries, for example, an average amount of stock of $\$ 1,000.00$ during the year and sells $\$ 10,000.00$ worth of goods (value figured at cost price), the turnover is determined by dividing the $\$ 10,000.00$ by $\$ 1,000.00$. In this case the turnover would be 10. The average amount of stock, $\$ 1,000.00$, was turned over ten times in the course of the year. The question immediately arises, "How can one determine the average amount of stock carried ?" 'To be absolutely correct, it would be necessary to take the inventory at the end of each month, add together these amounts, and divide by the number of months considered. Where the stock does not vary greatly in amount from one month to another, however, it is often satisfactory to add the inventory at the beginning and the inventory at the end of the year, and divide by 2 . This will give the average inventory. This amount is then divided into the cost of goods sold. The quotient is the turnover for the year.

Frequent turnover tends to increase working capital and makes it possible for a man to run his business with a minimum of borrowing. Quick turnover also means frequent replacement of merchandise and a fresh and thus more salable stock at all times.

Mr. Johnson's average inventory was $\$ 14,162.45$; this he compared with the sales to determine the amount of turnover. Since the inventory was valued at cost price, it was necessary to figure the sales at cost price also. Therefore he took the cost of goods sold instead of the sales. \$41,573.64 divided by $\$ 14,162.45$ equals 2.9 , the rate of turnover. After assuring himself that his stock had been moving satisfactorily, Mr. Johnson compared the figure for turnover with that taken from last year's statement. His statement for 1920 is shown in Figure 2.

From the profit and loss statement for 1920 ascertain the turnover by the same method which we used in determining the turnover for 1921. You will find that the turnover for 1920 is 2.65. The turnover for 1921 we found to be 2.9. This slight increase in turnover for 1921 indicates a greater business activity and would usually indicate also a larger gross profit.

Since his turnover had increased somewhat for 1921 over that of 1920, Mr. Johnson felt that he was approaching the normal turnover which was to be expected in his line of business.
2. To Compare Gross Profit with Sales. Mr. Johnson was also interested in knowing whether the gross profit figure was increasing or decreasing. The gross profit for 1921 should be compared with the net sales of

## Johnson Mercantile Company

## PROFIT AND LOSS STATEMENT

## For year ended Dec. 31, 1920



The Profit and Loss Statement for 1920
Figure 2. Several distinct uses for the profit and loss statement are explained in detail in this lesson. In order to show how each use works out in actual business practice the profit and loss statement of the Johnson Mercantile Company is referred to frequently in the explanations. By following up the discussions and explanations with an analysis oi the statement itself the real importance of the profit and loss statement to any business becomes readily apparent.
that year, and the gross profit for 1920 with the net sales for that year. Taking the two statements of the Johnson Mercantile Company, what per cent of sales is the gross profit in each case? In 1920, gross profit \$18,$110.41 \div$ net sales $\$ 50,811.14=35.6$ per cent. In 1921 , gross profit $\$ 28,-$ $120.33 \div$ net sales $\$ 69,693.97=40.3$ per cent. Evidently gross profit had increased 4.7 per cent, which means that Mr. Johnson made almost 5 cents more gross profit on every dollar of sales in 1921 than in 1920.
3. To Compare Net Operating Profits with Sales. The net operating profit is the amount left after operating expenses have been deducted from gross profit. In other words, the net operating profit represents the real earning power of the business. In 1921 the net operating profit was $\$ 6,042.75$ or 8.6 per cent of sales. In 1920 the net operating profit was $\$ 6,984.69$, or 13.7 per cent of sales. The operating profit had dropped 5.1 per cent even though there was a 4.7 per cent increase in gross profit.

Comparison of the two statements discloses that expenses for 1920 are 21.9 per cent of sales and for 1921, 31.7 per cent, an increase of 9.8 per cent. This increase in operating expenses wiped out the 4.7 per cent increase in gross profit and left a 5.1 per cent decrease in net operating profit. By comparing the selling expenses with the sales for 1921, Mr. Johnson found that these expenses had been too high and would have to be cut down. You can prove this for yourself by using percentages. (To determine what percentage one number is of another, divide the first by the second.) He also found thru comparison that the administration and general expenses had been excessive, making it necessary for him to manage his business more economically in the future.
4. To Determine the Percentage of Net Profit. In 1920 the net profit was $\$ 5,796.06$, or 11.4 per cent of net sales. In 1921 the net profit was $\$ 5,100.00$ or 7.3 per cent of sales. This decrease of 4.1 per cent in net profit when gross profit showed an increase of 4.7 per cent is also explained by the high operating costs.
5. To Determine the Effect of Miscellaneous Income and Expense. Because of the higher operating costs during 1921, Mr. Johnson endeavored to increase his income for that year and thus offset in part the decrease in net profit. This accounts for certain additional items in the 1921 statement.

$$
\begin{aligned}
& \text { In } 1921 \text { the miscellaneous income was........................................ } \$ 825.00 \\
& \text { In } 1920 \text { the miscellaneous income was. } \\
& 465.74 \\
& \text { Increase................................................................................... } \$ 359.26
\end{aligned}
$$

With this increase in income, compare his increase in miscellaneous costs also.

$$
\begin{aligned}
& \text { In } 1921 \text { the miscellaneous costs were...................................... } \$ 1,767.75 \\
& \text { In } 1920 \text { the miscellaneous costs were...................................... 1,654.37 } \\
& \text { Increase............................................................................... } 113.38
\end{aligned}
$$

The increase in income was $\$ 359.26$; the increase in cost was $\$ 113.38$. There was thus a net increase in miscellaneous income for 1921 of $\$ 245.88$.

Profit and Loss Statement a Progress Report. In Assignment 1 we learned that while the balance sheet was the barometer by which a business could be judged as to its financial standing, it afforded little, if any, definite information as to the progress a business was making. The profit and loss statement supplies this progress information because it indicates

# Johnson Mercantile Company <br> PROFIT AND LOSS STATEMENT 

For year ended Dec. 31, 1921
Sales
Total Sales ...................................................... $\$ 70,141.22$
Less Returned Sales ................................. . . . 447.25
Net Sales .......................................................................
$\$ 69,693.97$
Cost of Goods Sold
Inventory, Jan. 1, 1921 ................................. $\$ 12,449.27$
Purchases ............................... \$46,000.00
Less Returned Purchases.............. $1,000.00$
Net Purchases .................................................. $45,000.00$
$\$ 57.449 .27$
Less Inventory, Dec. 31, 1921..................... 15 15,875.63
Cost of Goods Sold
41,573.64
Gross Profit
Operating Expenses
Selling Expenses ........................................... $\$ 11,515.40$
Administration Expenses ............................. 4,190.15

Total Operating Expenses ..................................................
22,077.58
Net Operating Profit ....................................................... $\$$ 6,042.75
Miscellaneous Income and Expense
Other Income
Interest Earne
Rent Received Interest Earned .......................................... \$40.00
Rent Received .......................................... 360.00
Sales of Waste Paper ............................. 50.00
For Use of Truck by Customers ................. 125.00
Purchase Discounts .............................. 250.1
$\$ 28,120.33$
825.00
$\$ 6,867.75$


The Tie-up Between the Profit and Loss Statement and the Balance Sheet
Figure 3. It is a significant fact that there is scarcely a form or statement which an accountant is required to make up which hasn't some relation to other entirely different forms or statements. Here, for instance, we find that the balance sheet is tied up with the profit and loss statement by the net profits and current inventory items.
whether a business has been going ahead or falling behind. It may well be called the progress report of a business.

How Mr. Johnson Interprets the Statement. That the profit and loss statement is really a progress report of business is well illustrated by the following conclusions Mr. Johnson made from his profit and loss statement with reference to the growth of his business:

1. His business had a fairly good turnover and showed an increase of gross profit.
2. Operating expenses had reduced this profit and therefore needed closer control in the future.
3. His policy of bringing in extra earnings was good, because it helped to increase the net profit.
4. Finally, he was convinced that it would be better to have a profit and loss statement every six months instead of only once a year; thus he could check up on his expenses more often and catch any losses before they could reach a large total.
Relation of Profit and Loss Statement to Balance Sheet. There are only two items that appear in both the profit and loss statement and the balance sheet, viz., net profit and current inventory. The current inventory is an asset; it is also shown in the "Cost of Goods Sold" section of the profit and loss statement. The net profit figure does not always appear on the balance sheet as a separate item. It may be merged in the Surplus Account on the balance sheet of a corporation, or it may be shown in total with the net worth, in the case of a proprietorship. Figure 3 shows how the profit and loss statement and the balance sheet are tied together by the Net Profit and Current Inventory Accounts.

In later assignments you will find that "balance sheet items" and "profit and loss items" are referred to frequently. There is a fundamental difference between the two which will be clear if you just bear in mind that the

Balance Sheet contains
Assets
Liabilities
Net Worth
and reflects the financial condition of a business; while the

Profit and Loss Statement contains the
Sales (and Returned Sales)
Purchases (and Returned Purchases)
Gross Profit
Expenses
Net Operating Profit
Miscellaneous Income and Expense
and reflects the progress made by the business.

## THE IMPORTANT POINTS IN THIS ASSIGNMENT

First-That the primary purpose of the profit and loss statement is to determine whether the business has made progress and how much, and that this progress or lack of progress is expressed in terms of net profit or net loss.
Second-That in determining this net profit or loss the accountant must consider four things:

1. Income from sales, by distinguishing between gross sales and net sales.
2. Cost of goods sold, in order to arrive at gross profit or gross loss.
3. Operating expenses, to be deducted from gross profits.
4. Miscellaneous transactions outside of regular operations, in order to arrive at net profit.
Third-There are two classes of expenditures: operating expenses, which decrease the profit and are known as "profit and loss items," and capital expenditures, which increase the value of fixed assets and are known as "balance sheet items."
Fourth-That the profit and loss statement is a very important report, because it gives the head of a business the following important information:
5. The rate of stock turnover.
6. The relation of gross profit to net sales.
7. The relation of net operating profit to sales.
8. What the percentage of net profit is to sales.
9. The effect of miscellaneous income and expense on net profit.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 2

The following problems taken from actual business operations will give you practice in applying the principles of this assignment.

Observe carefully all instructions which have been given you, and send in carefully prepared solutions to each of the following four problems:

1. Mr. J. F. Cook owns a grocery store. You are asked to give him the amount of turnover and the gross profit for the year 1921.

These are the facts that you find on looking over the books: December 31, 1921:
Total Sales
\$12,000.00
Returned Sales
250.00

Purchases During Year............................................... 9,200.00
Inventory, Dec. 31
2,270.00
(a) Calculate the turnover
(b) What is the amount of the gross profit?
(c) The gross profit is what per cent of net sales?
2. Mr. C. L. Thomas is the proprietor of a small jewelry store. His gross profit for the month of January, 1922, amounts to $\$ 800.00$. His operating expenses for January include:

| Salari | \$205.00 |
| :---: | :---: |
| Rent | 65.00 |
| Heat | 31.00 |
| Light | 14.25 |
| Insurance | 12.00 |
| Advertisin | 17.60 |

(a) What is his net operating profit for January, 1922?

Here are other facts that have to do with Mr. Thomas' business:

```Purchase Discounts\$ 86.00
```

Sales Discounts ..... 106.00
Interest Paid on Notes ..... 340.00
Interest Received ..... 116.00
Received from Sale of Empty Boxes ..... 11.00

```Donation to Business Club........................................................... 20.00
```

(b) What is Mr. Thomas' net profit for January, 1922?
3. On November 1, 1921, Mr. T. H. Black began a retail drug business. He had no stock on hand to begin with. During November he bought $\$ 8,000.00$ worth of drugs, and his sales amounted to $\$ 2,500.00$. On November 30 he has $\$ 6,575.00$ worth on hand. His expenses for November amounted to $\$ 200.00$.
(a) How much has he lost or gained from the month's business?
(b) During the month of December he bought show cases and an office desk. Are these purchases operating expenses or capital expenditures? State the reason for your answer.
4. The Northwestern Coal Company asks you to make a profit and loss statement for the year 1921. The books show the following facts on December 31, 1921:

| Cash on Hand...-............................................. | 5,100.00 |
| :---: | :---: |
| Sales ...... | 78,000.00 |
| Inventory Dec. 31, 1921. | 4,000.00 |
| Mortgage Payable ........ | 1,500.00 |
| Purchases | 47,000.00 |
| Yards and She | 16,000.00 |
| Sales Discounts | 2,510.00 |
| Notes Payable | 3,000.00 |
| Salesmen's Salaries | 4,300.00 |
| Office Salaries | 3,000.00 |
| Accounts Receivable | 5,200.00 |
| Interest Earned | 160.00 |
| Accounts Payable | 6,000.00 |
| Inventory Jan. 1, 1921 | 2,000.00 |
| Notes Receivable | 3,200.00 |
| Equipment | 8,500.00 |
| Purchase Allowances | 1,600.00 |
| Loss on Bad Debts. | 1,200.00 |
| Delivery Expenses | 8,500.00 |
| Yard Labor .......... | 2,500.00 |
| Advertising | 1,000.00 |
| Sales Allowances | 1,500.00 |
| Taxes | 275.00 |
| Insurance | 590.00 |
| Interest Paid | 370.00 |
| Capital, Jan. 1, 1921. | 22,485.00 |

(a) Send in the profit and loss statement for 1921.
(b) Present a list of all the items that should be shown on the balance sheet, December 31, 1921. Make two columns, one for the assets and the other for the liabilities and net worth.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assignment 3 <br> THE GENERAL LEDGER

COMPETITION is so keen to-day that only the wellintormed person can hope to draw ahead of the crowd. No corporation, no firm wants an ignorant employe for a responsible position.
It may require effort, it may require rigid self-discipline, it may require painful self-denial to switch from careless, idle habits to a course of study. But very soon the pleasure derived from good habits will immeasurably outweigh the false pleasure derived from bad habits.

From Forbes Magazine

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PR.ACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Casi Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Itemis
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignaents
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## THE GENERAL LEDGER

## THE DOUBLE-ENTRY PRINCIPLE-THE TRIAL BALANCE

You are now familiar with the balance sheet and the profit and loss statement, and understand their great value to those in charge of the direction of business affairs.

Of course, if these reports are to be safe guides in the management of business, they must be accurate; that is, they must summarize without error the vast number of individual transactions of all kinds that occur thruout the year.

We have said nothing as yet about how these business transactions are classified and summarized. It has been our purpose up to this time to make clear to you the important business summaries-statementswith which all business men should be familiar.

In this assignment you will see how business transactions are classified and summarized by means of a device called an "Account." The nature of the account will be made clear, and you will see also that the Ledger, a book of which you have often heard, is simply a book which contains these accounts.

Why Business Transactions Must Be Classified. You no doubt have noticed the straight rows of lumber piled in the well-organized lumber yard. Each pile represents a different size and grade of lumber; when the yardmen fill an order, there is no confusion or delay, because they know just where to go to get each size and grade. And they can do this, simply because the lumber as it was brought into the yard was piled where it belonged. In other words, it was classified according to size and grade.

The accountant classifies business transactions in much the same way. For example, he records his cash transactions together in one place, his notes receivable in another, his accounts payable in still another place, and so on. Each of these groups he calls an account.

Then when he wants certain information, or when at the end of the month he wants to set up his balance sheet and profit and loss statement, he will know exactly where to turn in order to get this information, because he was careful to make the right classification when he recorded the transaction.

What Is an Account? Broadly speaking, an account is a record in the ledger of similar business transactions. For instance, the Accounts Receivable Account is a record of the total amount of money which customers owe a business on open account. The Notes Payable Account is a similar record of the notes which the business has given to outsiders. The Cash

Account is a record of cash received and cash paid out. And so on. Accounts will be few or many, according to the nature and size of the business and the need for detailed information by those who direct its affairs.

## HOW LEDGER ACCOUNTS ARE DIVIDED

Ledger accounts are usually divided into two general classes, "real" and "nominal."

Real Accounts. The real accounts include Assets, Liabilities, and Capital, which are real, permanent, and independent values. Such accounts are also called balance sheet accounts, because they appear on the balance sheet. For example, Cash, Notes Receivable, Notes Payable, Inventory, etc., are all real accounts.

Nominal Accounts. The word "nominal" as applied to accounts to distinguish them from "real" accounts, does not mean that the nominal accounts are "unreal." "Nominal" is used in the sense of "temporary," to show that such accounts are not permanent. For instance, Sales, Purchases, Expenses, and Income are nominal accounts. In these accounts are recorded all increases and decreases of net worth; in other words, all profits and losses. These nominal accounts exist only during the accounting period, at the end of which they are summarized, and the net result, whether a profit or a loss, is transferred to the Proprietor's Account. Nominal accounts are also called profit and loss statement accounts, since they appear on the profit and loss statement.

The Standard Form of an Account. The pages of the ledger are ruled according to a standard, of which Figure 1 is a reproduction in skeleton form.

## NAME OF ACCOUNT

| DATE | ITEMS | Folio AMOUNT | DATE | ITEMS |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | Folio AMOUNT |  |

## Skeleton Form of an Account

Figure 1. This represents merely a skeletonized form of the layout of a ledger page. It is reproduced to show the divisions and subdivisions of a standard form of account.

The name of the account should be written on the top line. For instance, if $\$ 50.00$ was paid out for rent, that amount would be entered in the account headed "Expense." If merchandise was purchased on account, the amount would be entered under the account headed "Purchases," etc. In the case of each transaction, of course, another account is affected, as will be explained later in the assignment.

The vertical line divides the form into a right and left side. Under "Date" is recorded the year, month, and day of the transaction; under
"Items," a brief explanation of the nature of the transaction, and under "Amount," the exact amount of money involved in the transaction. In the "Folio" column is to be entered the number of the page in the journal from which the entry was transferred to the ledger. The use of this column will be explained more fully when we explain the journal in detail.

The standard form, as you will find it in the ledger, is reproduced in Figure 2. It has the same general make-up as the skeleton form except that columns have been added to assist in writing in and in reading the amounts and other data. The heading of the amount column on the left has been changed to "Debits," while on the right side it has been changed to "Credits."

## NAME OF ACCOUNT



The Standard Form of an Account
Figure 2. The standard layout of any ledger page is essentially the same as shown here. Notice how, by ruling off the columns and substituting the words "debits" and "credits" where the word "amount" appeared in the skeletonized form, a definite place is provided for every bit of information about the transaction.

What Is Meant by "Debit." Whenever we enter a transaction on the left side of an account, we debit the account. The amount is therefore a debit item and is entered in the column headed "Debits." The term "charge" is commonly used by accountants as a synonym for "debit."

What Is Meant by "Credit." Whenever we enter a transaction on the right side of an account, we speak of crediting the account. The amount is said to be a credit and is entered in the column headed "Credits."

To make this perfectly clear, compare the ordinary expressions with the accountant's terms as given below.

The layman uses these expressions:

1. Place the amount of $\$ 10$ on the left side of the Cash Account.
2. This item is one which must be placed on the left side of an account.
3. In the Cash Account the left side will usually be greater than the right side.

The accountant says:

1. Debit, or charge, $\$ 10.00$ to Cash Account.
2. This is a debit item, or this is a charge.
3. The Cash Account has a debit balance.

Increases and Decreases in Accounts. This debit and credit system forms the basis of sound accounting. It offers a more convenient form of recording increases and decreases and requires less time, but it does much more than that, it affords numerous checks and safeguards which reduce to a minimum the chances of loss thru the inevitable errors of clerks.

Figure 3 is a Cash Account with transactions entered according to this debit and credit method.

CASH


The Cash Account
Figure 3. Notice that the original investment and all the cash received by this business is "debited" (entered on the debit side). All cash paid out is credited (entered on credit side).

Convenience of the "Debit" and "Credit" System. In order to show that the debit and credit method is more convenient and that it is a timesaver, let us find the balance of the above Cash Account in the ordinary way. In order to do this, we must add every increase and subtract every decrease. The long-strung-out calculations would be as follows:

| Jan. 3 | Original Investment $\qquad$ $\$ 2,000.00$ <br> Paid Out for Office Furniture. 1,000.00 |
| :---: | :---: |
|  | Balance on Hand................................................. $\$ 1,000.00$ |
| 6 | Paid Out for Rent............................................... 60.00 |
|  | Balance on Hand................................................. $\$ 940.00$ |
| 12 | Received from Bank.......................................................... 1,500.00 |
|  | Balance on Hand................................................. $\$ 2,440.00$ |
| 17 | Paid Out for Clerk's Salary................................. 70.00 |
|  | Balance on Hand................................................ $\$ 2,370.00$ |
| 18 | Paid Out for Fuel.............................................. 50.00 |
|  | Balance on Hand................................................. $\$ 2,320.00$ |
| 24 | Received from Customer...................................... 400.00 |
| 31 | Balance on Hand................................................. $\$ 2,720.00$ |

Obviously it is much easier and simpler to subtract the sum of the "credits" from the sum of the "debits" as in Figure 3.

Increases Not Always on Debit Side. From the Cash Account used here as an illustration you might be led to think that all accounts are increased on the debit side and decreased on the credit side. This is not the case, however. Only the following accounts are increased by debit entries: Assets, Expenses, and Purchases. On the other hand, all Liability accounts, Capital, Sales, and other Income accounts, are credited with increases and debited with decreases. The chart shown in Figure 4 will explain this statement more fully:

| All Asset, <br> Expense, and <br> Purchases Accounts are |  |
| :--- | :--- |
| INCREASED <br> on left <br> side by <br> debits | DECREASED <br> on right <br> side by <br> credits |
| HAVE DEBIT BALANCES |  |

> All Liability, Capital,
> Sales, and Income Accounts are

DECREASED on left side by debits INCREASED on right side by credits

## HAVE CREDIT BALANCES

Figure 4. This chart will help you to fix in your mind just which accounts are increased on the debit side and which accounts are increased on the credit side. The former accounts normally have debit balances, the latter credit balances.

## SELF-TEST PROBLEMS

In order to understand better this basic principle of double entry ac-counting-of how assets, expenses, and purchases are increased by debits and decreased by credits, and how liabilities, capital, sales, and income are credited with increases and debited with decreases-analyze the accounts of Frank Brown listed in Figure 5 as they appear on his ledger Jan. 31, 1922.

LEDGER ACCOUNTS (Frank Brown)
CASH

(Continued on next page.)

OFFICE FURNITURE

| DATE |  | ITEMS | Pol. | $\sqrt{ }$ | DEBITS | DATE | ITEMS | Pol. | $\sqrt{ }$ | CRED | ITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1922 \\ & \text { Jan. } \end{aligned}$ | 5 | Cash |  |  | 1000/00 | 1922 |  |  |  |  |  |
|  |  |  |  |  | $-1$ | $\square$ |  |  | - |  | -- |

ACCOUNTS RECEIVABLE


## NOTES PAYABLE



ACCOUNTS PAYABLE


PURCHASES

| $\int_{\text {Jan. }}^{1922}$ | 10 Accounts Payable |  | 50000 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 Accounts Payable |  | 20000 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

SALES

(Continued on next page.)

## EXPENSES



Ledger Accounts
Figure 5. The ledger accounts of Frank Brown as listed here will give you an opportunity to check up on your understanding of the statement, that increases are not always shown on the debit side of the account. Analyze these accounts and pick out those that have increases on the left side and decreases on the right side. In that way you will be able to tell whether you have grasped the full significance of the statement.

We have already explained that the Cash Account is increased on the left side and decreased on the right side.

On January 5, furniture was purchased, and so the account must show the increase. Notice that the increase is shown by a debit in the Office Furniture Account, since the account is an asset.

The same is true of Accounts Receivable, which was increased because Smith \& Wells bought $\$ 700.00$ worth of merchandise on account on January 21. This increase is debited. Later Smith \& Wells paid $\$ 400.00$ cash on their account, which reduced Accounts Receivable. This reduction is shown by a credit. On January 30, Jones \& Company bought merchandise for $\$ 400.00$ on account. Since Accounts Receivable is increased, the account is debited.

Notes Payable and Accounts Payable are both liability accounts, and therefore have all increases on the credit side. On January 12, $\$ 1,500.00$ was borrowed from the bank; on January 10 and on January 16, merchandise was purchased on account; on January 19, Brown gave a note for $\$ 300.00$, thus increasing his Notes Payable and decreasing the Accounts Payable. These increases are credited, and the decrease is debited.

## THE DOUBLE-ENTRY METHOD EXPLAINED

Every business transaction is twofold in its nature-values are received and values are given; it is for this reason we use the term "double entry" method. In Frank Brown's ledger you will notice that each entry is offset by another entry of exactly equal amount under the same date.

The governing principle in double entry is the maintaining of a balance in the ledger. This you cannot accomplish unless the credit side of every transaction is exactly offset by the debit side. For example, when you sell merchandise valued at $\$ 100.00$ for cash the transaction would be analyzed thus:

Debit Cash Account $\$ 100.00$. Credit Sales Account $\$ 100.00$.
Thus a business transaction is an exchange of equal values, and it is necessary to show this twofold effect of every transaction in the ledger.

If you pay $\$ 50.00$ rent for a store, you part with the cash and in return receive the use of the store. The accounts Cash and Expense are affected. Cash is decreased, because cash is paid out. Expense is increased. Therefore: Expense Account is debited $\$ 50.00$. Cash Account is credited $\$ 50.00$.

Analysis of Business Transactions. The following four questions must be asked and answered about each business transaction before it can be correctly classified and recorded in the accounts.

1. What accounts are affected by the transaction?
2. Are these accounts increased or decreased?
3. Which side of these accounts records increases, and which records decreases?
4. Which account shall be debited and which credited as a result?

In the ledger accounts of Frank Brown which are shown in Figure 5, twelve business transactions are recorded, five of which we have analyzed below, using the four questions given above.

Transaction 1. On January 3, 1922, Frank Brown invests $\$ 2,000.00$ cash in a retail business.

1. Cash and Proprietorship accounts are affected.
2. Cash is increased $\$ 2,000.00$ Proprietorship is increased $\$ 2,000.00$.
3. Cash is an asset and therefore is debited with increases. Proprietorship is credited with increases.
4. Cash Account is debited with $\$ 2,000.00$, and Capital Account is credited with $\$ 2,000.00$.
Check up to see whether or not this double entry has been made in the accounts shown in Figure 5.

Transaction 2. On January 5, Brown buys office furniture for $\$ 1,000.00$ cash. In working out the four steps by numbers, this analysis would follow:

1. Cash and Office Furniture accounts are involved.
2. Office Furniture is increased, and Cash is decreased.
3. Since both accounts are assets, they are always increased on the left side and decreased on the right side.
4. Office Furniture is debited with $\$ 1,000.00$ because it is increased. Cash is credited with $\$ 1,000.00$ because it is decreased.

Have the proper debit and credit in the two accounts been shown?
Transaction 3. On January 6 Brown pays $\$ 60.00$ rent.

1. Cash and Expense accounts are involved.
2. Cash is decreased, and Expense is increased.
3. Increases are shown in both accounts on the left side, and decreases on the right side.
4. Expense is debited with $\$ 60.00$, and Cash is credited with $\$ 60.00$.

Do you find this debit and credit in the ledger accounts?
Transaction 4. On January 10 Brown buys on account merchandise worth $\$ 500.00$ from Witt \& Kling. We have omitted the analysis for Transactions 4 and 5, and have given only the results.

Debit Purchases with $\$ 500.00$, and credit Accounts Payable with $\$ 500.00$.

Have the debit and credit entries been made in the accounts?
Transaction 5. On January 12 Brown borrows $\$ 1,500.00$ from the bank and gives the bank a promissory note.

Debit Cash with $\$ 1,500.00$, and credit Notes Payable with $\$ 1,500.00$.
See whether these entries were properly made.
Make a similar analysis of the remaining transactions, using the same four steps.

Important Accounting Principles. By making this careful analysis of five transactions of Brown's business we have illustrated several important accounting principles that apply to all ledger accounts. They are as follows:

1. Every account must have a proper heading, which indicates clearly the nature of the entries it contains.
2. Every transaction must be recorded on the same line with the date, sufficient explanation of the nature of the transaction, and the amount.
3. Liability, Capital, Sales, and Other Income accounts are always credited for increases and debited for decreases. They have credit balances.
4. Asset, Expense, and Purchase accounts are always debited for increases and credited for decreases. They have debit balances.
5. The total amount credited is equal to the total amount debited.
6. Every transaction has a twofold effect on the accounts.

## THE TRIAL BALANCE

The keeping of accounts is based upon principles of exactness. There are hard and fast rules which cannot be side-stepped, and safeguards are provided against errors which make it possible for the accountant to check his work to assure himself that he has not violated those principles.

There is no accounting operation which may be said to be an exception to this statement. Let us take, as an example, the fundamental rule that underlies the double entry system.

Every credit entry in one account must be offset by a similar debit entry in another account.

The safeguard that uncovers violations of this rule is known as a trial balance. It is a trial or test to see whether the total debit entries in the ledger correspond with the total credit entries. If they agree, the ledger entries are accepted as correct.

How to Make a Trial Balance. To amplify this statement and show the purpose of the trial balance as well as the method of applying it to actual business, we will take the accounts of Frank Brown, as listed in Figure 5, and prepare a trial balance. In doing so, we must organize our work according to the following plan:

First, make a list of the accounts as they appear in the ledger.
Then, set up two columns to the right of this list. The left-hand column is for debits and the right-hand column is for credits.

Finally, after each account named, enter in the columns the total debits and the total credits for each account as you find them in the ledger, thus:


The Trial Balance (of Totals)
Figure 6. Since every credit entry in a ledger must be offset by a similar debit entry, the taking of a trial balance is largely for the purpose of seeing whether or not this procedure has been followed exactly. This is a trial balance of totals. As stated in the discussion, the same results can be arrived at by taking a trial balance of balances, as shown in Figure 7.

Trial Balance of Balances. Let us take the same list of accounts as shown in Figure 6 and instead of taking the total debits and total credits of each account, let's take merely the balance. In other words, let's find out which side of each account is larger, and how much larger. First notice the Cash Account. The total debits amount to $\$ 3,900.00$, and the total credits amount to $\$ 1,180.00$. The difference you will find is $\$ 2,720.00$. This we call the balance of the Cash Account. Since the debit side is $\$ 2,720.00$ larger than the credit side, we say the Cash Account has a debit balance.

Using this illustration of the cash balance, you will have no trouble in getting the balance for each of the other accounts. The trial balance of balances appears as shown in Figure 7.

| Frank Brown <br> trial balance (OF balances), Jandary 31, 1922 |  |  |
| :---: | :---: | :---: |
| Cash. | . $\$ 2,720.00$ |  |
| Office Furniture. | 1,000.00 |  |
| Accounts Receivable | 700.00 |  |
| Notes Payable...... |  | \$1,800.00 |
| Accounts Payable. |  | 400.00 |
| *Purchases...... | 700.00 |  |
| Sales..... |  | 1,100.00 |
| Expenses.. | 180.00 |  |
| Capital. |  | 2,000.00 |
|  | \$5,300.00 | \$5,300.00 |
| *Merchandise on hand January 31, 1922, \$100.00. |  |  |

The Trial Balance (of Balances)
Figure 7. Here we have the trial balance made up from balances rather than from totals. So far as proof as to the accuracy of the accounts is concerned, there is no difference between this type of trial balance and one made up from totals. The trial balances of balances, however, possess certain advantages which you will find fully explained in the text.

The advantage is this: The trial balance is the intermediate step between the ledger and the statements. For example, the accountant does not take over the asset and liability amounts directly from the ledger into the balance sheet. First of all he sets up a trial balance, to test the accuracy of the accounts. Now, while the accountant tests the accounts by means of a trial balance, he might just as well set up the trial balance in such a form that he can transfer the amounts directly from the trial balance into the statements without any further calculations. Figure 8 shows a profit and loss statement made up from items in the foregoing trial balance.

You will notice in the profit and loss statement shown in Figure 8, that of the goods purchased, all were sold except $\$ 100.00$ worth. This unsold merchandise is really in the Purchases Account and must, therefore, be subtracted from the Purchases amount to find the cost of goods sold.


The Profit and Loss Statement
Figure 8. Brown's accountant would use the trial balance of balances in making up his monthly balance sheet and profit and loss statement. This form illustrates how the profit and loss statement will appear.

The balance sheet made up from the same trial balance is shown in Figure 9.

| Frank <br> BALANCE SHEET, | Brown <br> JANUARY 31, 1922 |
| :---: | :---: |
| ASSETS | LIABILITIES AND CAPITAL |
| Current Assets | Current Liabilities |
| Cash............... $\$ 2,720.00$ | Accounts Payable... \$ 400.00 |
| Accounts Receivable. $\quad 700.00$ | Notes Payable....... 1,800.00 |
| Merchandise........ 100.00 |  |
| Total Current Assets............ $\$ 3,520.00$ | Total Liabilities................ $\$ 2,200.00$ |
| Fixed Assets | Capital |
| Office Furniture............... . $1,000.00$ | Net Worth, Jan. 1. \$ 2,000.00 Net Profit for Jan. $\quad 320.00$ |
|  | Present Net Worth............... $\$ 2,320.00$ |
| \$4,520.00 | \$4,520.00 |

The Balance Sheet
Figure 9. The accountant has taken the balance sheet items from the trial balance of balances. If he had taken them from the trial balance of totals, he would have had to determine the balances first before setting up the balance sheet.

The Main Purposes of the Trial Balance. It is apparent, then, that the trial balance serves two important purposes:

First.-It is used to test the correctness of the ledger.

Second.-It is used in making up the balance sheet and the profit and loss statement.

Order of Entering Ledger Accounts. You no doubt have noticed that the accounts of Frank Brown have been explained in the order in which they were set up in the general ledger-assets first, then liabilities, then nominal accounts, and finally the capital account. While there is no rule for entering these accounts in a certain order, it is considered the best practice to arrange them in the order in which they appear in the balance sheet and the profit and loss statement. However, if some other plan is better adapted to the needs of a business, that is the one to use. The important consideration is to save as much time and effort as possible.

## THE IMPORTANT POINTS IN THIS ASSIGNMENT

When we summarize the outstanding principles of accounting practice explained in this assignment we find it desirable to reëmphasize the following:
First-The ledger is a permanent record of all transactions of a business. Not only must the entries be correct but they must be properly classified.

Second-There are two kinds of ledger accounts-Real and Nominal. Real accounts are more or less permanent and include Assets, Liabilities, and Capital. Nominal accounts are accounts such as Sales, Purchases, Expenses, and Income which change currently thruout the accounting period.
Third-Ledger entries are made according to the debit and credit method, known as the double entry system, which is based on the rule that every debit entry must be offset by a credit entry.
Fourth-The trial balance is the test by which an accountant can detect errors in his ledger entries.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 3

Assignment 3 teaches some fundamental principles which it is absolutely essential that you understand thoroly. The double entry principle explained in this assignment is the basic principle in all modern accounting practice.

Apply the principles learned in this assignment to the following practical problems. If you succeed in "getting a balance" in problem 3, you can safely feel that you have an understanding of this very important asignment.

Observe, as usual, all previous instructions, and send in work that will pass a rigid test both as to correctness and appearance.

1. The following accounts appear on the ledger of the F. L. Lowe Trading Company. Make two columns, listing in the one those accounts that have a debit balance, and in the other those accounts that usually have a credit balance.

Cash<br>Accounts Receivable<br>Notes Payable<br>Accounts Payable<br>Merchandise Inventory<br>Purchases<br>Delivery Equipment<br>Sales<br>Delivery Expense<br>Interest Earned<br>Interest Expense<br>Capital<br>Insurance Expense

2. Set up ledger accounts with the following transactions properly entered.

Jan. 3, 1922, P. A. Morgan begins a wholesale shoe business with a cash investment of $\$ 4,000.00$.
3, Pays $\$ 100.00$ for rent.
4 , Buys office furniture for $\$ 120.00$ cash.
5 , Buys $\$ 3,637.50$ worth of shoes, on account, from W. Eddy \& Company.
6, Pays $\$ 1,000.00$ cash to the Springfield Shoe Company for an order of shoes.
7, Sells shoes to W. J. Watson on account, amounting to $\$ 350.75$.
10 , Buys a delivery truck for $\$ 1,200.00$ cash.
11 , Sells to C. A. Brown, shoes on account, for $\$ 600.00$.
12, Returns $\$ 50.00$ worth of shoes to W. Eddy \& Company, and receives credit for $\$ 50.00$.
14, Pays $\$ 200.00$ to W. Eddy \& Company to apply on account.
17 , Pays $\$ 150.00$ for an office safe.
18, Sells shoes on account for $\$ 750.00$ to Charles Harrison.
19, W. J. Watson complains that part of his order of Jan. 7 was of inferior grade. He is not required to return the goods, but is allowed credit for $\$ 25.00$.
21, Receives a check from C. A. Brown for $\$ 300.00$ to apply on his account, and a 30 -day note covering the balance of the account.
24 , Sells shoes worth $\$ 510.00$ to R. S. Stone, who gives a note, payable in 30 days.

25, Borrows $\$ 1,000.00$ from First National Bank on his note, payable in 60 days.
26 , Sells $\$ 450.00$ worth of shoes on account to F. Jones.
28 , Pays $\$ 5.00$ for telephone service in January.
30, Pays $\$ 10.00$ for newspaper advertising in January.
31, Pays clerk's salary for January, $\$ 150.00$.
31, Receives $\$ 20.00$ from the sale of old boxes. (This income should be recorded in an account separate from regular sales.)
3. (a) From the ledger accounts which you have set up in Solution 2, prepare a trial balance of balances.
(b) From this trial balance set up a profit and loss statement for the month. The Merchandise Inventory of January 31, 1922, amounted to $\$ 2,500.00$.
(c) Prepare a balance sheet showing the financial condition of the business as of January 31, 1922.

You can't keep your work up to date if_you don't keep your mind up to date.
-Herbert Kaufman

# Higher Accountancy 

PRINCIPLES
PRACTICE and'
PROCEDURE

## Elements of Accounting Practice

## Assignment 4 <br> CLOSING THE LEDGER

THE training offered by an institution such as LaSalle Extension University, supplementing as it does, in a most valuable way, the purely mechanical details acquired in the office or bank, should be of great practical advantage to all who are ambitious to prepare themselves for the numerous avenues of useful and profitable employment which the future will surely afford.

Elmer H. YOUNGMAN,
Editor, Banker's Magazine

## LaSalle Extension University Chicago

## ASSIGNMENTS IN <br> ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Itemis
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Prorlems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## CLOSING THE LEDGER

## BRINGING TOGETHER THE PROFIT AND LOSS ACCOUNTS

The information which is collected and classified in the ledger during an accounting period usually appears in a large number of accounts. At the end of the period the accounts containing this information are totaled, a trial balance is taken, and the statements are then prepared.

Summary of the Ledger Necessary. Besides furnishing information for the statements, the accounts must also be summarized in the ledger itself. In other words, all temporary or nominal accounts, such as Purchases, Sales, and Other Income and Expense accounts must be summarized or clesed. In these accounts have been recorded all changes in net worth during the period. The net result of all these changes, whether a profit or loss for the period, must finally be brought into the Capital Account if the Capital Account is to show the facts, namely the present net worth. This summarizing of the nominal accounts is a process of several steps, commonly called "closing the ledger."

The Closing Process. Closing the ledger does not bring any new transactions into the ledger; it does not change in any way the assets, liabilities, profits, or losses; it merely summarizes, that is, brings together, what is already in the accounts. In other words, it is an internal adjustment of the ledger.

The closing process involves several definite steps, which can be described best by means of a practical example from business. We have selected John Singer's business for the purpose of illustration.

Illustration. John Singer is a dealer in potatoes. He generally buys his potatoes from out-of-town commission merchants and sells them to grocers of his own city.

The store in which he does business is small and costs him only $\$ 50.00$ a month rent. In fact he doesn't need a large store, because he never keeps a large stock on hand. He employs two men-one a handy man around the store, and the other an accountant.

Mr. Singer devotes most of his time to buying and selling, and leaves the work of keeping records to his accountant.

Like any successful business man, he leaves nothing to guesswork. Each month he checks up with his accountant so that he will know exactly where the business stands.

Net Profit Determined by Statements. On the last day of September, 1921, the accountant took a trial balance, and from this trial balance made a profit and loss statement for the month. The net profit for September,
as shown on his statement, amounted to $\$ 214.54$. The accountant also made a balance sheet, in which the same net profit was shown as added to the capital on September 1, 1921.

Why the Ledger Must Be Closed. Thus at the end of the month Singer knew his net profit and his present net worth from the information which was summarized in the statements. But the summary in the statements did not in any way change the ledger accounts themselves. In the profit and loss statement, for example, the net profit for the month was determined by summarizing the nominal accounts in the form of a report. It was necessary also for the accountant to make a summary in the ledger in order to bring the net profit figure finally into the Capital Account. In other words he must close the ledger.

When the Ledger Is Closed. It is customary to close the nominal accounts at regular intervals, usually at the time of making the statements. As explained in Assignment 3, the nominal accounts are temporary and are used during the period to record all profits and losses. At the end of the accounting period these profit and loss accounts have served their purpose, and for this reason they are balanced and ruled off.

It was necessary, therefore, for Singer's accountant to close the ledger on September 30. His ledger contained the accounts given in Figure 1.

LEDGER ACCOUNTS (John Singer) REAL-BALANCE SHEET ACCOUNTS

CASH

| DATE |  | ITEMS | Pol. | $\checkmark$ | DEBITS |  | DATE |  | ITEMS | Pol. | $\checkmark$ | CREDITS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1921 \\ & \text { Sept. } \end{aligned}$ | 1 | Balance on Hand |  |  | 20000 | 00 | Sept. | 3 | Expense, Rent |  |  | 50 | 00 |
|  | 13 | Pranklin \& Smith |  |  | 750 | 00 |  | 5 | Purchase |  |  | 450 | 00 |
|  | 23 | Franklin \& Smith |  |  | 60 | 00 |  | 9 | Expense, Stationery |  |  | 10 | 00 |
|  | 28 | Income, Sale of Empty |  |  |  |  |  | 14 | Roach \& Co. |  |  | 160 | 00 |
|  |  | Barrels |  |  | 10 | 00 |  | 24 | Wells Potato Farm |  |  | 150 | 00 |
|  |  |  |  |  |  |  |  | 26 | Preight on Purchase |  |  | 47 | 50 |
|  |  |  |  |  |  |  |  | 30 | Delivery Equipment |  |  | 340 | 00 |
|  |  |  |  |  |  |  |  | 30 | Expense, Clerk's |  |  |  |  |
|  |  |  |  |  |  |  |  |  | Salary |  |  | 115 | 00 |
|  |  |  |  |  |  |  |  | 30 | Expense, Accountant's |  |  |  |  |
|  |  |  |  |  |  |  |  |  | Salary |  |  | 170 | 00 |

(Accounts continued on next page.)
Assignment 4, Page 2

## ACCOUNTS RECEIVABLE



## INVENTORY



DELIVERY EQUIPMENT


NOTES RECEIVABLE


ACCOUNTS PAYABLE


NOTES PAYABLE


CAPITAL


## NOMINAL-PROFIT AND LOSS STATEMENT ACCOUNTS PURCHASES



SALES


## INCOME (OTHER THAN SALES)



EXPENSES


## Ledger Accounts

Figure 1. Mr. Singer's ledger accounts shown here contain only specimen transactions. The balances are carried forward as of September 1. The accounts are grouped in two general classes:

1. Real, or Balance Sheet Accounts
2. Nominal, or Profit and Loss Statement Accounts

What Is Meant by Closing an Account? Since the process of closing the ledger involves the closing of certain accounts, it is necessary first of all to understand what is meant by "closing an account."

The closing of an account as illustrated in Figure 2 requires three definite steps:

1. Balancing the account
2. Double-ruling the account
3. Transferring the balance to another account, which is usually a summary account.

## PURCHASES



TRADING


## Closing an Account Illustrated

Figure 2. Follow Mr. Singer's accountant step by step, and you will know exactly how to close an account. The first thing to do is to balance the account; in this case credit the Purchases Account with an amount large enough to balance the debit side, $\$ 721.70$. Then total both sides of the account and double rule it. The third step is to debit the Trading Account with the same amount that was credited to the Purchases Account.

Accounts to Be Closed. Closing the ledger does not mean that all accounts in the ledger are closed. Only those accounts are closed that are summarized in the profit and loss statement, namely those which involve changes in net worth. They are:

[^1]The balance sheet accounts are not closed, because they do not record changes in net worth. They are:

| Casi | Delivery Equipment |
| :--- | :--- |
| Accounts Rechivable | Notes Recfivable |
| Current Inventory | Accounts Payable |
| (Set up as a new account) | Notes Payable |

Balance sheet accounts are not formally closed as are the nominal accounts, but they may be ruled and balanced when they are forwarded to the next page. They cannot be said to be closed, because their balance is not transferred to a summary account.

Summary Accounts Used in Closing. When Singer's accountant closed his ledger, he set up two new accounts, the "Trading Account" and the "Profit and Loss Account." These accounts serve as partial summaries in the closing process. They do not appear on the ledger as regular accounts, but are provided at the time of closing to receive the balances of the accounts that are closed. After the balances have been entered, they in turn are also closed, and do not reappear until the next closing date. The balance of the Trading Account is either gross profit or gross loss. The balance of the Profit and Loss Account is either net profit or net loss.

In closing the nominal accounts, the accountant did the following three things:
I. Brought together SALES, PURCHASES, AND INVENTORIES into the Trading Account to DETERMINE GROSS PROFIT.
II. Carried gross profit TO THE PROFIT AND LOSS ACCOUNT, thus closing the Trading Account, and then offset this gross profit with the balance of the Expense Account and added the balance of the Income Account to determine the net profit.
III. Closed the PROFIT AND LOSS ACCOUNT and carried the NET PROFIT TO THE CAPITAL ACCOUNT AS A CREDIT.
Each of these three steps will now be fully illustrated.

## I. PURCHASES, SALES, INVENTORY CLOSED INTO TRADING ACCOUNT

Figure 3 shows these accounts as they appeared after the accountant closed them into the Trading Account to determine the gross profit.

SALES


Assignment 4, Page 6

PURCHASES


INVENTORY


TRADING


Closing Accounts into Trading
Figure 3. Observe how each of these accounts is closed into the summary account, Trading. The Sales Account has a credit balance of $\$ 1,287.24$. To close it the accountant must debit Sales Account with this amount, and credit Trading Account. Purchases Account is closed by crediting it with $\$ 721.70$ and debiting Trading with the same amount.

Fix in your mind just what these two entries into the Trading Account mean. The balance of the Sales Account is credited, and the balance of the Purchases Account is debited, to the Trading Account. If Singer had sold all the goods he purchased and had no potatoes on hand September 30 , then the difference between the sales and purchases would be the gross profit. But this is not the case. He had $\$ 96.00$ worth on hand September 30, and the Inventory Account shows a debit of $\$ 112.00$.

Inventory Adjustments. The accountant, therefore, must adjust these two inventories to show the facts properly on the books.

Previous Inventory. As you note in the accounts above, he credits the Inventory Account with the Previous Inventory, $\$ 112.00$, and debits the Trading Account for the same amount, thus closing the Inventory Account.

Current Inventory. The Current Inventory must also be set up below the double ruling. You will notice that the accountant debits the Current Inventory, $\$ 96.00$, to the Inventory Account and credits the Trading Account with the same amount.

Gross Profit-the Balance of the Trading Account. The Trading Account has now been debited with Purchases and Previous Inventory, and credited with Sales and Current Inventory. This account now shows (on the left) all goods which are to be accounted for, both the goods on hand at the beginning of the period and the purchases. It shows (on the right) the goods accounted for-the sales and the goods on hand at the end of the period. The difference between the goods to be accounted for and those accounted for is the profit due to Trading, i.e., Gross Profit.

## TRADING ACCOUNT

## DEBITS

Previous Inventory
Balance of Purchases Account Resulting Balance Is Gross Profit

## CREDITS

Current Inventory
Balance of Sales Account

The credit side is larger when there is a profit on trading, and the debit side is larger when there is a loss on trading.

## II. PROFIT AND LOSS ACCOUNT-FINAL CLEARING HOUSE FOR ALL NOMINAL ACCOUNTS

In taking the second step in closing the nominal accounts, the accountant sets up another summary account, called the Profit and Loss Account, into which he carries the balance of the Trading Account, at the same time closing the Expense and Income accounts. Note how the nominal accounts are closed into the Profit and Loss Account in Figure 4.

EXPENSE


Assignment 4, Page 8

INCOME


TRADING


PROFIT AND LOSS


## Closing Accounts into Profit and Loss

Figure 4. Mr. Singer's accountant now closes all three accounts, Expense, Income, and Trading, into one summary account, called Profit and Loss. Notice that the Trading Account is closed into this Profit and Loss Account, by debiting the Trading Account with the Gross Profit amount, and crediting Profit and Loss Account with the same amount. Follow the explanation in the text and you will see how the Expense and Income Accounts are closed.

Expense Closed to Profit and Loss. Since Gross Profit now stands in the Profit and Loss Account as a credit, and Expenses reduce this profit, the accountant will debit the Profit and Loss Account with the balance of the Expense Account, at the same time crediting the Expense Account, and thus closing it. If the accountant had several Expense Accounts, each account would be closed in the same way into the Profit and Loss Account.

Income Closed to Profit and Loss. Since income increases the profit, the balance of the Income Account is credited to the Profit and Loss Account. At the same time the Income Account is debited, and the account is closed and ruled.

## III. TRANSFER OF THE NET PROFIT TO CAPITAL

The Profit and Loss Account now has two credit items and one debit item. The balance is the net profit, which is carried to the Capital Account. This is the final step in closing the ledger.

## PROFIT AND LOSS

## DEBITS

Balances of Expense Accounts
Resulting Balance, Net Profit Carried to the Capital Account

## CREDITS

Balance of Trading Account
Balance of Income Account

The accountant now closes the Profit and Loss Account into the Capital Account. In doing this he debits the Profit and Loss Account with the balance of that account, which is the net profit, and credits the Capital Account with the same amount. This difference amounts to $\$ 214.54$.

## PROFIT AND LOSS

| DATE |  | ITEMS | Pol. | $\checkmark$ | DEBITS | date |  | ITEMS | Fol. | $\checkmark$ | CREDI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1921 \\ & \text { Sept. } \end{aligned}$ | 30 | Balance of Expense |  |  |  | 1921 | 30 | Balance of Income |  |  |  |  |
|  |  | Account |  |  | 34500 |  |  | Account |  |  | 10 | 00 |
|  | 30 | Net Profit Carried to |  |  |  |  | 30 | Gross Profit |  |  | 549 | 54 |
|  |  | Capital Account |  |  | 21454 |  |  |  |  |  |  |  |
|  |  |  |  |  | 55954 |  |  |  |  |  | 559 | 54 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

CAPITAL


Final Closing of Profit and Loss into Capital
Figure 5. Mr. Singer's accountant now takes the last step in the closing process, by closing the Profit and Loss Account into the Capital Account. Thus the net profit is added to the original capital, showing that Mr. Singer has a net worth of $\$ 2,101.54$. Then the Capital Account may be closed by a debit of $\$ 2,101.54$, and opened again under date of October 1, with a credit of the same amount.

| TRIAL BALANCE (APTER CLOSING), SEPTEMBER 30, 1921 |  |  |
| :---: | :---: | :---: |
| Cash. | $\begin{gathered} \text { Debits } \\ 652.50 \end{gathered}$ | Credits |
| Accounts Receivable. | 1,107.24 |  |
| Inventory........ | 96.00 |  |
| Delivery Equipment. | 340.00 |  |
| Notes Receivable.. | 180.00 |  |
| Notes Payable.. |  | \$ 274.20 |
| Capital....... |  | 2,101.54 |
|  | \$2,375.74 | 2,375.74 |

The Trial Balance (After Closing)
Figure 6. The trial balance, shown here, assures the accountant that he has made no error in closing the ledger. This is only one of the many ways in which the accountant can check up on his work to satisfy himself that his work is correct up to date. Notice that the trial balance after closing contains exactly the same items as those that would appear in the balance sheet. The only difference is in the arrangement of items.

| TRIAL BALANCE, SEPTEMBER 30, 1921 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Casb. | $\begin{gathered} \text { Before } \\ \text { Debits } \\ 652.50 \end{gathered}$ | Closing Credits | $\begin{gathered} \text { After } \\ \text { Debits } \\ 652.50 \end{gathered}$ | losing Credits |
| Accounts Receivable. | 1,107.24 |  | 1,107.24 |  |
| Inventory........ | 112.00 |  | 96.00 |  |
| Delivery Equipment. | 340.00 |  | 340.00 |  |
| Notes Receivable. | 180.00 |  | 180.00 |  |
| *Purchases.. | 721.70 |  |  |  |
| Expense Account. | 345.00 |  |  |  |
| Income Account. |  | 10.00 |  |  |
| Sales.. |  | \$1,287.24 |  |  |
| Notes Payable. |  | 274.20 |  | \$ 274.20 |
| Capital.. |  | 1,887.00 |  | 2,101.54 |
|  | \$3,458.44 | \$3,458.44 | \$2,375.74 | \$2,375.74 |
| *Of this amount, \$96.00 remains unsold. |  |  |  |  |

## Two Trial Balances Compared

Figure 7. Here you have the two trial balances side by side. You can see at a glance that the second is shorter than the first, because Purchases, Expense, Income, and Sales accounts are omitted in the second. These accounts are omitted because they have been closed and their balances have been summarized or reduced to net profit, which has been added to Capital. Two accounts, Capital and Inventory, have different amounts in the trial balance after closing from what they had in the trial balance before closing. The Capital Account is larger by the amount of net profit. The Inventory Account now shows the Current Inventory amount because of the adjustment made in the closing process.

Capital Account Closed. It is customary to close the Capital Account by a balance, as indicated above. This consists of balancing the account by a debit entry on the date of closing the ledger and ruling up the account. This balance is then brought down under date of the first of the following month.

Purpose of the Trial Balance after Closing. The accountant has now finished the closing process. He has been making numerous debits and credits. To safeguard himself against errors in the closing process, he verifies his ledger by taking a trial balance. He lists the balances of all the accounts that remain open, namely the real accounts. If the debits and credits have been made correctly, the balance will be as shown in Figure 6.

Difference between the Two Trial Balances. Compare the two trial balances of John Singer's business, and note what items are omitted or changed in the trial balance after closing.

## OTHER METHODS OF CLOSING THE NOMINAL ACCOUNTS

Some accountants prefer to use other methods in closing the nominal accounts. The more important ones are as follows:

1. Adjusting the inventory thru the Purchases Account instead of thru the Trading.
2. Using the Sales Account as a Trading Account.
3. Adjusting the inventory and closing the nominal accounts directly into the Profit and Loss Account.
4. Adjusting Inventories thru Purchases Account. The accountant adjusted the inventories thru the Trading Account. Some accountants make this adjustment thru the Purchases Account instead. They debit Purchases Account with the Previous Inventory and credit it with the

PURCHASES

| DATE |  | ITEMS | Fol. | $\checkmark$ | DEBITS |  | DATE |  | ITEMS | Fol. | $\checkmark$ | CREDITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1921 \\ & \text { Sept. } \end{aligned}$ | 5 | Cash |  |  | 450 | 00 | $\begin{aligned} & 1921 \\ & \text { Sept. } \end{aligned}$ | 30 | Current Inventory |  |  | 9600 |
|  | 20 | Wells Potato Farm |  |  | 224 | 20 |  | 30 | Cost of Goods Sold, |  |  |  |
|  | 26 | Cash, Freight |  |  | 47 | 50 |  |  | to Trading |  |  | 73770 |
|  | 30 | Previous Inventory |  |  | 112 | 00 |  |  |  |  |  |  |
|  |  |  |  |  | 833 | 70 |  |  |  |  |  | 83370 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

TRADING


Adjusting Inventories thru Purchases Account
Figure 8. Showing another way of adjusting inventories. As you see, inventories are not brought into the Trading Account, but rather into the Purchases Account. This method is quite commonly used.

Current Inventory, \&fter making these entries, they carry the balance of the Purchases Account, which is the cost of goods sold, into the Trading Account. If Singer's accountant had used this method, his Purchases and Trading accounts would appear as in Figure 8.
2. Sales Account Used as a Trading Account. By this method no Trading Account is set up, all trading items being summarized in the Sales Account. Inventories are adjusted thru the Purchases Account, and the cost of goods sold is carried over into the Sales Account, instead of into the Trading Account, in this way:

## PURCHASES

| DATE |  | ITEMS | Fol. | $\checkmark$ | DEBIT |  | DATE |  | ITEMS | Fol. | $V$ | CREDIT |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1821 \\ & \text { Sept. } \end{aligned}$ | 5 | Cash |  |  | 450 |  | $\\| \begin{aligned} & \text { 1921 } \\ & \text { Sept. } \end{aligned}$ | 30 | Current Inventory |  |  | 98 | 00 |
|  | 20 | Wells Potato Farm |  |  | 224 | 20 |  | 30 | Cost of Goods Sold, |  |  |  |  |
|  | 26 | Cash, Freight |  |  | 47 | 50 |  |  | to Sales Account |  |  | 737 | 70 |
|  | 30 | Previous Inventory |  |  | 112 | 00 |  |  |  |  |  |  |  |
|  |  |  |  |  | 833 | 70 |  |  |  |  |  | 833 | 70 |

SALES


Sales Used as Trading Account
Figure 9. In using this method no Trading Account is needed. Inventories are brought into the Purchases Account, and then the balance of the Purchases Account is carried into the Sales Account. This method is not so commonly used, but you may run across it in your accounting experience, and for this reason you ought to be familiar with it
3. Inventories Adjusted, Nominal Accounts Closed Directly into Profit and Loss Account. By this method no intermediate summary is made for gross profit. Inventories are adjusted directly into the Profit and Loss Account. The balances of Purchases, Sales, Expense, and Income accounts are also carried directly into the Profit and Loss Account, as shown in Figure 10.

## PROFIT AND LOSS



Direct Entries in Profit and Loss Account
Figure 10. Showing a method that has been approved by some accountants. It has one advantage at least-it saves time by eliminating the Trading Account as an intermediate step.

The ultimate result obtained from these three methods is exactly the same as the result derived from the method first shown. The method used by Singer's accountant, however, is generally approved by the best authorities on accounting. By closing Purchases and Sales into Trading without first adjusting inventories thru the Purchases Account, we have kept the nominal accounts, pure accounts, that is, they contain nothing but profit and loss elements. The Current Inventory which is a balance sheet item, or real account, is not brought into Purchases as in Method 1. This is in accord with a fundamental accounting principle that a ledger account should not contain unlike elements. Purchases Account should show nothing but purchases, Sales Account nothing but sales, and all the other nominal accounts should, in like manner, contain only transactions that affect net worth. If these transactions are kept in their respective classes of accounts, they can be quickly referred to for statistical purposes.

The Old Merchandise Account. Formerly the mixed account was more in favor than now. For example, it was customary to carry a "Merchandise" Account, to which were debited the previous inventory and all purchases for the period, and to which were credited all sales. Then at the end of the period, the current inventory was credited. Modern accounting practice has done away with the mixed account almost entirely. Separate accounts are now used for purchases, sales, purchases returned, sales returned, and inventories.

Statistical Value of Nominal Accounts. By keeping a separate account for purchases, another for sales, etc., the accountant is able to collect information quickly. He wastes no time. If he has only a few expenses to record, he will have one Expense Account, but when there are many expense items, he will classify them into as many accounts as the nature of the business may require. John Singer has only one Expense Account. Large concerns provide for several expense accounts, for example, Selling Expense, Administration Expense, and General Expense. Separate accounts may be set up for rent, taxes, insurance, or anything on which information may be desired later.

The real purpose of the nominal accounts, then, is to provide temporary places in which transactions of profit and loss may be analyzed. At the end of the accounting period these accounts are summarized and closed into Capital, in the form of net profit. They may therefore be thought of as temporary expansions of the Capital Account.

Why All Changes in Net Worth Are not Entered Directly into the Capital Account. The same result would be effected if the nominal accounts were not used. For example, it would be possible for the accountant to record purchases and expenses, item by item, as debits directly in the Capital Account, and sales and income as credit items in the Capital Account. Then he would not need to close any accounts at the end of the period. He would merely adjust the inventories into the Capital Account. Then the balance of the Capital Account would be carried forward as the capital for October 1, 1921. If he made these entries directly to Capital, the account would appear as in Figure 11.

## CAPITAL



## Direct Entries in the Capital Account

Figure 11. This method of direct entry is not used in business, because the Capital Account would thus become too long and cumbersome, especially in the case of large concerns, where many purchases and sales are made and hundreds of expenses incurred. We have shown you how these direct entries might be made so that you will understand fully what we mean by saying that the nominal accounts are temporary expansions of Proprietorship or Capital. Notice that the balance is the same as in the preceding capital accounts shown in this Assignment.
You can see how difficult it would be to collect information from such a Capital Account as that given in Figure 11, especially in a large business.

If the proprietor wished to know what the total purchases for the period were, he or his accountant would have to search thru a long list of transactions before he could determine the amount. Thus you can see the advantage of having classified nominal accounts for reference and information purposes.

How to Value Inventory of Merchandise. The rule followed-by most accountants and business men is to value the inventory at cost or market price, whichever is the lower. This is considered the most conservative method by business men. The federal government has approved its use in making up income tax returns.

Singer has 100 bushels of potatoes on hand, Sept. 30, 1921, and he values them at the market price, 96 cents a bushel, because it is lower than the average cost price. If the present market price were higher than the cost price, then the cost price should be taken. Suppose that potatoes have gone up to $\$ 1.10$ a bushel on Sept. 30, 1921, and suppose that Singer figures his inventory at $\$ 1.10$ a bushel. This would increase his Current Inventory amount and at the same time decrease the Cost of Goods Sold amount, with the result that his Gross Profit would be larger. Singer might object because his income tax would thus be increased, but the chief objection from the accountant's standpoint is that Singer would be anticipating profits; he would be figuring a profit not yet realized, and this is contrary to good accounting principles.

## THE ESSENTIAL POINTS OF THIS ASSIGNMENT

When you have read this fourth assignment carefully you will know how to close the ledger.

Briefly stated there are three steps:

1. Sales, Purchases and Inventory are closed-that is summarized in the Trading Account.
2. Trading, Expense and Income Accounts are closed in the Profit and Loss Account.
3. The Profit and Loss Account is closed into the Capital Account.
You also have learned three other ways of closing a ledger.
In the second place, you have been given not only the "how" but also the "why" of closing a ledger.

The ledger is closed periodically, so that the net result of all changes in net worth, will finally be reflected in the Capital Account. Thus at the end of every month, or oftener if desirable, losses and gains for the period may be summarized, and the net loss or net gain brought into the Capital Account.

The old nominal accounts disappear-they are closed and ruled, and new nominal accounts will be set up for the next period.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 4

Observe all previous instructions, and do the following work as carefully as possible.

It will be necessary for you to transfer the following accounts of William Green to paper of your own. In closing the balance of one account into another, indicate in each case from where and to where the transfer is made-just as we have done in the examples given in this assignment.

Problem 2 will test in a simple way your ability to analyze. It is important to an accountant to possess and develop this ability.

1. At the close of business December 31, 1921, the following totals appeared in the accounts on the books of William Green. The amounts shown are the results of business operations from July 1 to December 31, 1921.
(a) Prepare a trial balance (of balances) before closing the nominal accounts.
(b) Close the nominal accounts, using the Trading and Profit and Loss accounts as explained on pages 8 and 9 of this assignment. Show all the nominal accounts as they will appear after closing.
(c) Make a trial balance after closing.

The current inventory is $\$ 1,900.00$.
CAPITAL (William Green)

| DATE | ITEMS | P01. | $\checkmark$ | DEBITS | DATE |  | ITEMS | Pol. | $\checkmark$ | CREDITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921 |  |  |  |  | 1921 | 31 |  |  |  | 4700 00 |

CASH


PURCHASES


SALES


NOTES RECEIVABLE


## NOTES PAYABLE



## EXPENSE



INCOME (OTHER THAN SALES)

| dATE | ITEMS | Pol. | $\checkmark$ | DEBITS | date | ITEMS | Pol. | $\checkmark$ | CREDITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921 |  |  |  |  | $1 \begin{aligned} & 1921 \\ & \text { Dec. }\end{aligned}$ |  |  |  | $67 / 30$ |
|  |  |  |  |  |  |  |  |  |  |

## ACCOUNTS PAYABLE



ACCOUNTS RECEIVABLE


PREVIOUS INVENTORY

2. From the ledger accounts of John Singer's business on pages 2, 3 and 4, determine what the transactions were for the month of September. Find the corresponding credit for every debit. List the transactions according to the dates disregarding the balances of September 1. For example: The transaction for September 3 should be shown thus:

Sept. 3, $\$ 50$ paid for rent, debit to Expense, credit to Cash, etc.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assignment 5

THE JOURNAL

AMAN simply cannot run his business or department on the facts of yesterday. I need only mention modern accounting facts, credit facts, organization facts, employment facts, market facts, executive-control facts, and even the larger economic facts which have a profound influence upon management policies.

F. A. SEIbERLING<br>President, Seiberling Rubber Company

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

```
    1. The Balance Sheet
    2. The Profit and Loss Statement
    3. The General Ledger
    4. Closing the Ledger
    5. The Journal
    6. Closing the Ledger by Journal Entry
    7. The Cash Journal
    8. Merchandise Records-The Purchase and Sales Journals
    9. Subdivision of the Ledger
    10. Columnization
    11. Promissory Notes
    12. Drafts, Acceptances, and Bills of Lading
    13. Auxiliary Cash Records
    14. Other Auxiliary Books and Business Papers
    15. Finding, Correcting, and Preventing of Errors
    16. Accrued and Deferred Itemis
    17. Depreciation and Uncollectible Accounts
    18. Partnership Accounting-Formation-Operation
    19. Partnership Accounting-Dissolution Problems-Joint
        Ventures
    20. Corporation Accounting-Formation-Operation
    21. Corporation Accounting-Reorganizations-Mergers
    22. The Voucher System
    23. Factory Accounting-Manufacturing Statement
    24. Factory Accounting-Perpetual Inventory-Cost Sifeets
    25. Classification of Accounts
    26. Single Entry
    27. Accounting for Nontrading Concerns
    28. Agency Accounts-Branches-Consignments
    29. Comparative Statements
    30. Analysis of Financial Statenents-General Review
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## THE JOURNAL

## THE BOOK OF ORIGINAL ENTRY

The journal is commonly referred to as the "book of original entry," in contrast with the ledger, which is often called the "book of final entry." In taking up this assignment, which is devoted entirely to the journal, it is important that you understand clearly at the start what the journal is and how valuable the principle of the journal has become to accounting.

Modern Journal Developed from Old Day Book. Broadly speaking, the journal is a book in which all daily transactions are first recorded before they are entered in the ledger.

In the early history of bookkeening all transactions were written out in detail in a "day book," so called because it was a record from day to day of all transactions as they occurred. The day book was regarded as an important book, since it contained the complete original record of each transaction made at the time the transaction took place.

With the advance of accounting practice a time-saving method was developed by which entries were made in a book with two money columns, one for debits, the other for credits. This book was called a "journal."

The modern journal is as much a daily record of the day's business as the unwieldy day book was, the only difference being that the journal offers an easier and more direct method of recording the transactions, and is a record which guards better against crrors than the day book.

In addition to being a complete record of daily transactions, the journal is also preferred as a source of authority and evidence in court.

## ADVANTAGES OF JOURNAL

There are five advantages in using the journal, which may be mentioned briefly.

1. Journal Is Timesaver. The accountant can save time by using the journal. If he entered every transaction directly and immediately into the ledger accounts, he would have to hunt up certain of the ledger accounts many times during the day. Wouldn't it be a better plan and a saving of time to analyze each transaction as it takes place, make a special record of it in a book provided for this purpose, and then later, at a convenient time, record these facts in the proper ledger accounts?
2. Journal Reduces Errors. If you first analyze the transactions in the journal to determine the proper debits and credits to be made, you are less likely to make errors in the ledger. In the journal analysis the account or accounts to be debited and credited are specifically stated, and
the debits and credits are shown side by side on the same sheet. As a result, it is very probable that the debit and credit amounts will be carried to the ledger correctly.

Furthermore, the analysis of transactions and the entries in the ledger are two separate operations. If you give special attention to each of these at different times, your work is likely to be more accurate.
3. Journal Records Every Transaction. If you enter the transaction directly into the ledger accounts, you split up the record immediately inta two parts, the debit being placed in one account and the credit in another; there is no one place in which the entire transaction has been recorded. The journal provides such a place. All the facts of a particular transaction, such as the date, the accounts affected, the debits and credits, and the amounts, can thus be found in the journal at any time.
4. Day-by-Day Record. It is not easy to ascertain from the ledger what has happened month by month or even day by day. Consequently the course of the business cannot be studied by merely using the ledger. You must also have the journal, which forms a sort of "running history" of the business.
5. Aids in Locating Errors. If at the end of an accounting period a trial balance is taken and found to be out of balance, it would be difficult to find errors without the aid of the journal. Suppose that you as proprietor bought show cases for $\$ 75.00$ cash, and that you entered this transaction directly into the ledger accounts without first setting up the complete transaction in the journal. Let's assume that in making the ledger entries you debited Office Furniture Account for $\$ 75.00$ and credited Cash Account for $\$ 7.50$, making an error in the Cash Account. Naturally at the end of the accounting period your accounts would be out of balance, and you would find it difficult to locate your error. But if you had used a journal and had recorded this transaction in the journal, showing the debit and credit amounts, you could have checked up the ledger accounts debited and credited with the journal debits and credits, and thus have located your error more easily.

For the reasons mentioned here, the necessity and advantage of having a journal are obvious. Every business requires at least two books of record, the ledger and the journal.

The Journal Page. The form of the journal is very simple. It contains pages ruled horizontally, so that names and figures may be kept in line. It should have two money columns at the right-hand side. Figure 1 shows the customary ruling.

In the "Explanation" column is recorded the analysis of the transaction. The account to be debited is placed on line 1. On the second line, beneath, and indented, is written the name of the account to be credited. This arrangement for debits and credits conforms to the arrangement of debits and credits in the ledger. Immediately below these account names is written an explanation of the important details of that particular transaction.

## JOURNAL



The Journal Illustrated.
Figure 1.-This illustration shows the simplicity of the journal pages. Each of the five columns, as you note, is used for a special purpose. The "Date" column is for the year, month, and day. Sometimes the date column is omitted and the date is entered in the center of the page. The "Folio" column is for the ledger page to which the item is transferred. Note how the amounts are placed. The "Explanation" column also has an important function, as explained in the discussion.

Wording of Journal Entry Explanation. The wording of the journal entry explanations is somewhat a matter of experience. This may be said in general:

Do not make the explanation too long or detailed. Do not make it so short that the record will be incomplete because of the omission of important facts. Names, dates, and addresses are important. The record should be so complete and clear that anyone reading it will know exactly what transaction has taken place. Public accountants often ascribe much of their difficulty to poorly made or incomplete explanations accompanying entries.

It is customary to leave one line blank between transactions so as to avoid confusion in reading. Thus the record of each transaction is set out as a separate and complete unit.

## WHAT IS MEANT BY "JOURNALIZING" AND "POSTING"

The use of the journal includes two definite and separate operations:

## 1. Journalizing

2. Posting
"Journalizing" means the entering of the debit and credit for each transaction in the journal. Posting consists of transferring these debits and credits to the ledger accounts. To illustrate both journalizing and posting we shall take the transactions of a small hardware store for the first fifteen days of August, 1921. These transactions will be journalized and posted.

Aug. 2 Arthur Andrews invests $\$ 5,000.00$ in cash in a retail hardware business.
2 Buys hardware from Western Hardware Company, for cash, $\$ 2,400.00$.
3 Pays rent for August 1-15, \$46.00.
4 Buys merchandise from Central Tool Works, on account, for $\$ 375.00$ terms, 2 per cent in 10 days.
5 Buys delivery wagon and horse, for cash, $\$ 425.00$.
6 Sells goods, for cash, $\$ 150.00$.
8 Sells merchandise, on account, to E. T. Simon, $\$ 37.50$-terms, 2 per cent in 10 days.
9 Pays account with Central Tool Works, taking advantage of discount.
9 Buys office furniture from Goodyear Supply Company, on account, for $\$ 180.00$.
Cash sales for the day amounted to $\$ 175.00$.
10 Pays $\$ 24.00$ for advertising.
11 Cash sales, $\$ 1$ S0.00.
12 Farmers Elevator Company buys $\$ 250.00$ worth of hardware and gives a 60 -day promissory note for that amount.
Cash sales, $\$ 160.00$.
13 Pays $\$ 50.00$, clerk's salary. Cash sales, $\$ 134.60$.
15 E. T. Simon pays his account, taking advantage of the discount. F. Walker buys, on account, $\$ 50.16$. Cash sales, $\$ 120.00$

Two Steps in Journalizing. Journalizing of transactions consists of two steps:

1. Determine the accounts to be debited and credited.
2. Enter the debit and credit in the proper columns of the journal.

Correct posting depends upon correct journalizing. If the transaction is not properly analyzed, the posting may be mechanically correct, but the accounts will not show the facts correctly.

Very often the easiest way of learning how to do a thing is to watch someone else do it and then try it yourself. You can learn the process of journalizing in this same way.

Of the nineteen transactions in Arthur Andrews' business, we have journalized eight in Figure 2. You are asked to journalize the other eleven transactions as your solution for Problem 1, stated at the end of the assignment.

The Posting Process. Now take the first journal entry which we have given, and note how the items are posted from the journal to the ledger accounts in Figure 3.

| Date | FOL. | EXPLANATION | DEBITS |  | Credits |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1921 \\ & \text { Aug. } 2 \end{aligned}$ | 2 | Cash | $50010$ | 00 |  |  |  |
|  | 2 | Arthur Androws, proprietor | 1 |  |  | 50 | 0.0 |
|  |  | Original investment in | - |  |  |  |  |
|  |  | Retail hardvare business | 7 |  |  |  |  |
|  |  |  | 11 |  |  |  |  |
| 2 | 2 | Purchases | 2400 | 00 |  |  |  |
| $\stackrel{\sim}{ }$ | 2 | Cash |  |  |  | 240 | 00 |
|  |  | Merchandise from Western Hardware Co. | 1 |  |  |  |  |
|  |  |  | . |  |  |  |  |
| 3 | 2 | Expense | 46 | 00 |  |  |  |
|  | 2 | Cash |  |  |  | 4 | 6100 |
|  |  | Rent of Store for August 1-15 | 1 |  |  |  |  |
|  |  |  | 11 |  |  |  |  |
| 4 | 2 | Purchases | 375 | 00 |  |  |  |
|  | 2 | Accounts Payable |  |  |  | 37 | 500 |
|  |  | Merohandise from Central Tool Morks. | - |  |  |  |  |
|  |  | Ierms, 2 Per Cent, 10 Days |  |  |  |  |  |
|  |  |  | - |  |  |  |  |
| 5 | 2 | Delivery Equipment | 425 | 00 |  |  |  |
|  | 2 | Cash | 1 |  |  |  |  |
|  |  | Bought Horse ond "ragon |  |  |  |  |  |
|  |  |  | 11 |  |  |  |  |
| 6 | 2 | Casin | 150 | 00 |  |  |  |
|  | 2 | Sales | 1 |  |  | 12 | 000 |
|  |  | Total Cash Sales for Day | 1 |  |  |  |  |
|  |  |  | - |  |  |  |  |
| 8 | 2 | Accounts Reorivable | 37 | 50 |  |  |  |
|  | 2 | Sales |  |  |  | 31 | 72 |
|  |  | Merchandise on Account to E. T. Simon |  |  |  |  |  |
|  |  | Terms, 2 Per Cent, 10 Days |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 9 | 2 | Acoounts Payable | 1375 | 00 |  |  |  |
|  | 2 | Cash |  |  |  | 36 | 750 |
|  |  | Purchase Discounts |  |  |  |  | 50 |
|  |  | Settlement of Account with Centrul Tool |  |  |  |  |  |
|  |  | Forks, 2 Per Cenc Jiscount |  |  |  |  |  |

## Journalizing Illustrated.

Figure 2.-Note carefully the general appearance of this journal page, and you will understand how to set up the eleven journal entries required in Problem 1. Every journal page should be neatly set up. It should be easily legible and contain all the essential details of every transaction.

Transaction 1. The first journal entry is for the original investment of $\$ 5,000.00$.

JOURNAL


Posting Process Illustrated-Transaction 1.
Figure 3.-The posting process is really very simple. Note how the cash debit in the journal is posted-transferred or copied-as a debit in the Cash Account, and the credit in the journal entered as a credit in the Capital Account.

Transaction 2. The second journal entry, shown in Figure 4, is for a purchase of merchandise for cash. Note how we have posted it to the accounts:

## JOURNAL



## LEDGER

Purchases


CAsh

| 1921 |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Aug | 2 | Investment | 1 | 5,000 | 00 | Aug. | 2 | Purchases | 1 | 2,400 |
|  | - | 00 |  |  |  |  |  |  |  |  |

Capital (Arthur Andrews)


## Posting Transaction 2.

Figure 4.-Observe how the debit of the journal is posted as a debit to the Purchases Account, and the credit as a credit to the Cash Account. The Cash and Capital accounts appearing here contain also the first transaction. The Purchases Account is the new account set up to take care of the debit for Transaction 2, and the credit is entered in the original Cash Account. The Capital Account is not changed by Transaction 2.

Transaction 3. The third journal entry was for payment of rent, $\$ 46.00$. It is posted as shown in Figure 5.

JOURNAL

| DATE |  | FOL. | EXPLANATION | DEBITS | CREDITS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921 | 3 | 2 | Expense | 4600 |  |  |
|  |  | 2 | Cash |  | 46 | 00 |
|  |  |  | Rent of Store for August 1-15. |  |  |  |
|  |  |  |  |  |  |  |

LEDGER
Expense


Purchases


Capital (Arthur Andrews)


Posting Trańsaction 3.
Figure 5.-Transaction 3 is posted as a debit to the Expense Account and a credit to the Cash Account. A new account must of course be set up for Expense, in which the debit is entered. The credit is set up in the original Cash Account.

Assignment 5, Page 8

In Problem 2, stated at the end of this assignment, you are expected to post all the journal entries, both those which we have given you in Figure 2 and those that you have set up in your solution for Problem 1. We have shown you how to post the first three journal entries. Complete the posting and take a trial balance of balances of your accounts. If your work is correct, your trial balance debits and credits will amount to \$6,444.76.

Underlying Principle. In this process of journalizing and posting transactions, we have been following an important principle of accounting procedure that you will want to remember thru all your accounting practice, viz.: No entry should be made in the ledger except as it is posted from some book of original entry.

In other words, the final record-the ledger entries-which must necessarily be brief, must be supported by entries giving all important facts in detail, and representing a diary of the transactions as they occur.

Posting Incomplete without Cross Reference. The process of posting is not complete until you have recorded in the ledger accounts the number of the journal page on which the transaction was first entered. Likewise in the journal, the ledger page to which the entry was posted should be indicated.

For example, take the first transaction in Arthur Andrews' business as it appears in the journal. In the folio column of the journal the page of the ledger on which the cash account appears is written, page 2.

The page of the ledger on which the proprietor's account appears is also written in the folio column of the journal on the same line with Arthur Andrews.

In the ledger accounts you will also find the page of the journal from which the items are posted.

In making your postings be careful to enter the page numbers properly in the journal and ledger, for each posting, as we have done for the first three transactions.

Assume that all journal entries are on page 1 of the journal and all ledger accounts on page 2 of the ledger.

Thus a complete cross reference is effected, and it is possible to trace every transaction, either from the journal to the accounts in the ledger, or backward from either account into the journal. In the journal you have the ledger pages, and in the ledger you have the journal pages.

In case some error has been made in posting, either by omitting an entry, by posting the incorrect amount, or by posting an amount into a wrong account, the error can easily be located by going back to the original entry.

Frequently it is necessary to get detailed information on a transaction because of some complaint of dissatisfaction from a customer. If the approximate date of the transaction is known, you can look it up in the jour-
nal; or if the date is not known, and the nature of the transaction is known, you may be able to locate it in one of the accounts that would be affected and trace it back to the original entry in the journal. In either case, the cross reference would help you to obtain the desired information.

How to Save Time Posting from Journal. After the transactions are carefully analyzed and the proper debits and credits shown in the journal, it is comparatively easy to post them to the ledger. Various methods may be used in practice. The most accurate and the shortest way should be adopted. Time can be saved by posting first all the debit items that are to be entered in one account, at one and the same time, while the ledger page of that account is open before you. For example, you would go thru all your journal entries and pick out all cash debits. These are entered in the Cash Account at one time; then you can turn to the Purchases Account, which probably appears on a different page of the ledger, and post all debits to the Purchases Account, etc. After the debits for all accounts have been entered, you would proceed to enter all credits in the same way, referring to each account only once and making all credits to each account while that particular page of the ledger is open.

When to Post from Journal into Ledger. In practice, posting may be done periodically-every day, every few days, or once a week, depending upon the number of transactions to be posted. All transactions for the period, however, must be posted before statements of account are rendered to customers. It is better not to delay posting too long. The accounts with customers and creditors should be kept up to date. Large concerns employ posting clerks, who spend all their time posting sales and purchases. Much time in posting can be saved by using special journals, one for all cash transactions, another for purchases on account, and another for sales on account. But these will be fully explained in Assignments 7 and 8.

## THE IMPORTANT PRINCIPLES OF THIS ASSIGNMENT

In conclusion note again the main points as they have been presented in Assignment 5.

First. The journal is essential to every system of accounts, because of several reasons:

1. It saves time
2. It helps to reduce errors
3. It provides a complete record of every transaction
4. It forms a sort of running history of the business
5. It aids in locating errors.

Second. The journal appears in standard form. The pages are ruled and columns are used for convenience and accuracy.
Third. There are two steps in journalizing.

1. Analyze the transaction into its debit and credit.
2. Enter the debit and credit in the proper columns of the journal.

Fourth. After transactions are journalized they must be posted -that is the debits and credits are transferred to the accounts in the ledger.
Fifth. The most important principle of the entire assignment is given on page 5. It is emphasized again in Assignment 6. It is as follows:

No entry should be made in the ledger except as it is posted from some book of original entry.
With these principles thoroughly mastered, you will be better able to set up satisfactory solutions of the problems.
(Problems on next page.)

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 5

Prepare and send in to the University solutions to the following probiems. These problems are based upon the discussion in this assignment. The solutions for them should be set up on the ruled paper provided.

Problem 3 is a test on some important principles of Assignments 3 and 4.

These problems represent practical situations, and for this reason they should receive your best efforts.

1. Set up the journal entries for the transactions on page 4.
2. Post the journal entries for the two weeks' period to the ledger accounts as required on page 9.
3. Here is a trial balance which was prepared by E. F. Thompson, the proprietor of a small retail business, December 31, 1921. The trial balance is out of balance. The amounts themselves are correct. That is, Mr. Thompson's ledger accounts are right, but he has made errors in setting up the trial balance. You are asked to find the errors and prepare and send in the trial balance in correct form.


# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 6 <br> CLOSING THE LEDGER BY JOURNAL ENTRIES

OUR MEN develop themselves. I give them a free rope and a long one. If they are too small for their jobs they get tangled up in the rope and it trips them. If they are too big they fashion the rope into a ladder and climb higher. Big men are only little men given a fair chance to grow.
J. Ogden Armour

President, Armour \& Co.

# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

```
1. The Balance Sheet
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5. The Journal
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9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Adjustment for Depreciation and Doubtful Accolnts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Jont
Ventures
20. Corporation Accounting-Formation-Oper.ition
21. Corioration Accounting-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-The Perpetual Inventory
25. Factory Accounting-Distribution of Overhead Costs
26. Classification of Accounts
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analyses of Financial Statements-Geveral Review
```


## CLOSING THE LEDGER BY JOURNAL ENTRY

The general principle that no entry should be made in the ledger which has not been previously recorded in a book of original entry, has an immediate and direct bearing upon this assignment on "Closing the Ledger by Journal Entry."

We want to emphasize this principle at the outset and give you a few of the reasons why it is desirable, as well as important, that you journalize not only all transactions which result from ordinary trading operations, but also all transactions which may result from adjustments you yourself may make in the records.

Always One "Best" Way. Generally speaking, there are many ways of performing almost any operation you may think of. But among the many ways, one is always the best and the safest. The man who can, either thru theory and training or thru actual practice and tested experience, determine for himself which is the best way and then use it, soon becomes proficient in that operation and is known as an expert.

Closing the ledger accounts is no exception, for there are more ways than one of accomplishing this process, but there is only one best and absolutely safe way, namely: Make no entries in the ledger unless they have been previously recorded in the journal.

Some accountants insist that it is unnecessary to do this. Instead of making closing journal entries, they enter the balances directly into the accounts affected. The best practice is against this method and in favor of omitting no entries or explanations from the journal when such omission might contribute toward errors in the closing process. This is the one method which leaves no loophole for error and makes every provision for making assurance doubly sure. Only those methods and practices which guarantee absolute certainty should be encouraged or used.

On the pages immediately following you will find the advantages of the journal-entry method of closing the ledger enumerated and the method fully illustrated and explained.

The Advantages of the Journal-Entry Method. Chief among the several important advantages of setting up complete closing entries in the journal before they are actually entered in the accounts, are the following:

1. The analysis in the journal of debits and credits for each of the closing steps, insures greater accuracy in making the entries in the ledger.

> 2. Only when such preliminary analysis of each closing step is made and entered in the journal will there be a complete record of each step in the process of closing the ledger.

Public accountants especially realize the big advantage of closing the ledger by the journal-entry method. When they check up a set of books, they are careful to note whether the closing entries have been properly
made. Any auditor in going over a set of books will want to know what method has been used in closing the accounts. If each of the closing entries has been journalized, the journal entries will indicate each step clearly, and the auditor can tell at a glance how the inventories were adjusted and what method was used. A complete and satisfactory verification is thus made possible.

So much for the reasons why closing the ledger by journal entry is the safest method for the accountant to use. Now let us take up the mechanics of the method itself.

John Singer's Accounts before They Are Closed. We presented several important accounting principles in Assignment 4 by setting up John Singer in the potato business and analyzing his records. These same records will now be used to show what journal entries should be made before the ledger is closed.

SALES


PURCHASES

| $\frac{1921}{1921} \text { Sept. }$ |  | Cash |  |  |  | 1921 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 | Wells Potato Farn |  |  | 22420 |  |  |  |  |  |  |  |
|  | 26 | Cash, Freight |  |  | 4750 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

EXPENSES


INCOME

(Accounts continued on next vage.)

INVENTORY

| DATE | ITEMS | Fol. | $\checkmark$ | DEBITS | DATE | ITENS | Fol. | CREDITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{l\|} \hline 1921 \\ \text { Aug. } \end{array}$ | Goods on Hand |  |  | 11200 | 1921 |  |  |  |

Nominal Accounts and lnevtory
Figure 1. We have reproduced here only the nominal accounts and the inventory account for John Singer's business, because they are the only accounts that are affected by the closing process. With these accounts before you, you are ready to set up the journal entries for the closing process.

Current Inventory. One thing more is necessary. We cannot close the ledger without knowing the amount of the current inventory; that is, how much stock Singer had on hand September 30. By actual count he had $\$ 96.00$ worth on September 30. But his Inventory Account showed a debit of $\$ 112.00$ as potatoes on hand August 31. Therefore, an adjustment (which is pureiy an internal transaction on the books) is necessary in order that the books will show the actual facts for September 30.

To make this adjustment we must credit the Inventory Account with the amount of the previous inventory, $\$ 112$, and debit the Trading Account with the same amount. The current inventory of $\$ 96.00$ is set up as a debit to the Inventory Account and a credit to the Trading Account. As we have said, some accountants might make these adjustments directly in the ledger, but it is better to enter them in the journal first, as shown in Figure 2.

How the Journal Entry Figures Are Determined. The first question that comes up in your mind is very likely to be, how we determine the amount of each of these entries.

1. The previous inventory, $\$ 112.00$, appears in the Inventory Account, August 31, as a debit. This same amount, therefore, must be credited to the Inventory Account to close the Inventory Account, and debited to the Trading Account.
2. The current inventory, $\$ 96.00$, is the value of goods on hand September 30 .
3. The amount of purchases, $\$ 721.70$, is the total of the debit items in the Purchases Account.
4. The amount of sales, $\$ 1,287.24$, is the total of the Sales Account.
5. The amount of expenses, $\$ 345.00$, is the total of debits in the Expense Account.
6. The amount of income, $\$ 10.00$, was the only item appearing in the Income Account.
7. The amount debited to Trading and credited to Profit and Lgas, which is $\$ 549.54$, is the balance of the Trading Account after giving effect to the foregoing entries.
8. The amount of the entry required to close Profit and Loss into Capital, is found by considering all the foregoing entries.


## The Closing Process Journalized

Figure 2. These journal entries show you how to proceed in closing the ledger. First of all, adjust the inventories, then close Purchases and Sales accounts into Trading. Finally close the Expense, Income, and Trading accounts into Profit and Loss.

Assignment 6, Page 4

From this explanation you will understand how the amounts are determined for the journal entries preliminary to closing the nominal accounts.

The closing journal entries should be made before the accounts are closed. It may seem to you more natural to close the accounts first and then record the entries in the journal. You are probably saying something like this: "We must close the accounts first in order to determine the amounts for the journal entries."

This is not the case. You can easily determine the balance of the nominal accounts, including the Trading and Profit and Loss accounts, as we have shown.

The first step, then, is to determine these amounts.
The second step is to make the journal entries for the closing process.

The third step is to post these journal entries to the accounts affected.

Journal Entries Posted to the Accounts. You are already familiar with the posting process from your study of Assignment 5. Journal entries for the closing process are posted in exactly the same way as any other journal entries. The page references are also used as described in Assignment 5 ; that is, in the journal the pages of the ledger are recorded, and in the ledger the pages of the journal are shown. When the closing entries have been properly posted, the nominal accounts are ruled, as indicated in Figure 3.

## INVENTORY

| DATE | ITEMS | Fol. | $\checkmark$ | DEBITS | DATE | ITEMS | Fol. | $\checkmark$ | CRED |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{l\|l} \hline \text { Aug. } & 31 \\ \hline \text { Aus } \end{array}$ | Goods on Hand | 1 |  | 11200 | 1921  <br> Sept.  | Closed to Trading | 1 |  | 112 | 00 |
| Sept. 30 | Inventory | 1 |  | 9600 |  |  |  |  |  |  |

SALES

| $\begin{array}{\|l\|l\|} \hline 1921 \\ \text { Sept. } & 30 \\ \hline \end{array}$ | Balanced Closed to |  |  |  |  | \|1921 | 10 | Acme Grocery Co. | 1 |  | 33 C | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trading | 1 |  | 1,287 | 24 |  | 16 | Franklin \& Smith | 1 |  | 415 | 00 |
|  |  |  |  |  |  |  | 27 | Acme Grocery Co. | 1 |  | 542 | 24 |
|  |  |  |  | 1,287 | 24 |  |  |  |  |  | 1,287 | 24 |

(Accounts continued on next page.)

## PURCHASES

| $\begin{aligned} & 1921 \\ & \text { Sept. } \end{aligned}$ | 5 | Cash |  | 450 | OC\| | $1921$ | 30 | Balance to Trading | 1 | 1 | 721 | ( 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 20 | Wells Potato Farm | 1 | 224 | 20 |  |  |  |  |  |  |  |
|  | 26 | Cash, Freight | 1 | 47 | $5 C$ |  |  |  |  |  |  |  |
|  |  |  |  | 721 | 70 |  |  |  |  |  | 721 | 70 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## EXPENSE



## INCOME



## TRADING

| $\begin{aligned} & 1921 \\ & \text { Sept. } \end{aligned}$ | 30 | Previous Inventory | 1 |  | 112 |  | $\\|_{1921}^{1921}$ | 30 | Current Inventory | 1 |  | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30 | Balance of Purchases | 1 |  | 721 | 70 |  | 30 | Balance of Sales |  |  |  |
|  | 30 | Balance to Profit |  |  |  |  |  |  | Account | 1 | 1,287 | 24 |
|  |  | and Loss | 1 |  | 549 | 54 |  |  |  |  |  |  |
|  |  |  |  |  | 1,383.2 | 24 |  |  |  |  | 1,383 | 24 |
|  | 1 |  |  |  |  |  |  |  |  |  |  | , |

## PROFIT AND LOSS

| $\begin{aligned} & \hline 1921 \\ & \text { Sept } \end{aligned}$ | 30 | Balance of Expense |  |  |  | $\left\lvert\, \begin{aligned} & 1921 \\ & \text { jept } \end{aligned}\right.$ | 3 C | Balance of Income |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Account | 1 |  | 34500 |  |  | Account | 1 | 10 | 00 |
|  | 30 | Net Profit, Carried |  |  |  |  | 30 | Gross Profit | 1 | 549 | 54 |
|  |  | to Capital Account | 1 |  | 2145 |  |  |  |  |  |  |
|  |  |  |  |  | 5595 |  |  |  |  | 559 |  |

(Accounts contimued on wert poge.)
Assignment 6, Page 6

CAPITAL

| 1921  <br> Sept. 30 | Falarce Down | 1 | 2,101 |  | 1821. | 1 | Capital | 1 |  | 1,887 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 30 | Net Prof | 1 |  | 214 | 54 |
|  |  |  | 2,101 | 54 |  |  |  |  |  | 2,101 | 54 |
|  |  |  |  |  | Oct. | 1 | Capital |  |  | 2,101 | 54 |
|  |  |  |  |  |  |  |  |  |  |  |  |

Nominal Accounts Closed
Figure 3. In this form are reproduced the ledger accounts as they will appear after the journal entries of Figure 2 have been posted. Notice the way in which these closed accounts are ruled. The double ruling indicates that the accounts are closed.

Checking Closing Entries. You may find it necessary to check up your closing entries. It will be a saving of time and effort if you are able to trace back the closing entries to the original entries in the journal, for rerification, particularly if you are unable to strike a balance after closing.

## IIAIN POINTS IN THIS ASSIGNMENT

In this assignment we have done three things.
First-We have reëmphasized one of the most important accounting principles, namely: "Make no entries in the ledger unless they have been previously recorded in the journal." We have shown the value of this principle by applying it to the process of closing the ledger.

Second-We have shown that the journal method of closing is better than the direct method, for two reasons:

1. Closing entries in the ledger will be more accurate if each closing step is first analyzed into its debit and credit in the journal.
2. The journal method provides a complete record or history of the closing process, which is especially valuable to auditors and other public accountants.

Third-The mechanics of closing the ledger by journal requires three definite steps:

1. Determine the amounts to be journalized.
2. Enter the amounts in the journal.
3. Post the journal entries to the accounts.

These three points have been illustrated by means of an actual situation from business. We have shown that it is not merely a theory but a practical method used and approved by accountants.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 6

In the problems that follow you will find situations which are real tests of your ability to close a ledger. Send in your solutions to all the problems for criticism and grading.

1. In the discussion of this assignment we have journalized the closing entries for the nominal accounts of John Singer's business as presented in Assignment 4. We have also posted these journal entries to the accounts and closed the accounts.

Now we are going to ask you to journalize the closing entries for Arthur Andrews' business, described in Assignment 5. The following trial balance gives you the balances from Mr. Andrews' ledger.

2. Post your journal entries for the closing process to the ledger accounts. It will be necessary for you to set up these accounts. Close and rule the accounts in the proper way.
3. Prepare trial balance after closing.
4. From the following trial balance of the Northwestern Coal Company, as of December 31, 1921, prepare the journal entries necessary in closing the nominal accounts.

TRIAL BALANCE, DECEMBER 31, 1921
Northwestern Coal Company


[^2]
## Higher Accountancy

PRINCIPLES
PRACTICE and'
PROCEDURE

## Elements of Accounting Practice

## Assignment 7 <br> THE CASH JOURNAL

ATHORO KNOWLEDGE of the Science of Accounting as distinguished from the Art of Bookkeeping is a highly important part of the modern executive's equipment. It is the means he now employs in exercising effective control over the work for which he is responsible.
By all means advise the young man of to-day to master accounting as a requisite to a successful business career.

R. E. CONNOLLY<br>Treasurer, Illinois Central Railroad Company

# LaSalle Extension University <br> Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

## 1. The Balance Sheet

2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Prorlems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations--Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## THE CASH JOURNAL

Importance of Cash Transactions. Analyze any business, and you will find that certain kinds of transactions occur more frequently than others. For example, most business transactions will sooner or later involve cash. Merchandise may be bought on account and sold on account. Open accounts with customers and creditors may be temporarily settled with promissory notes and drafts, but the final settlement is made by the payment of money.

Methods of Safeguarding Cash. Since cash is exchanged so frequently in the operation of a business, it is desirable and necessary to safeguard it as closely as possible. This may be accomplished in several ways:

1. Wherever it is possible, one man, who should be fully bonded, ought to be placed in control of the cash funds. In this way responsibility will be limited to one person.
2. It is advisable to deposit in the bank all cash received and to make all disbursements by check. Thus, cash receipts and disbursements are entered on two independent records, that of the business itself and also that of the bank.
3. The third way of controlling cash is taken up in this assignment. It has to do with the records of the business, especially with the cash book or cash journal.
Purpose of Cash Book. The cash book is a journal, in which only CASH transactions are entered. The cash book is really the cash transactions of the journal set off in a special place. In this way the general journal is relieved of the numerous cash transactions. To separate the cash transactions from the general journal and set them apart in a book by themselves has several advantages.

## IMPORTANT ADVANTAGES OF USING CASH JOURNAL

There are four outstanding advantages of using the cash journal which are as follows:

1. Time Is Saved in Posting. Instead of having to post, item by item, all cash receipts and all cash disbursements from the journal to the cash account in the ledger, totals can be posted from the cash book at the end of the period.
2. Less Likelihood of Errors. The cash book will show a balance of cash, which should agree with the actual balance on hand.
3. Amount of Cash on Hand Quickly Determined. The manager of the business will know what the cash amounts to by quick reference to the cash book.
4. Clerical Work Can Be Divided. One person can work on the cash journal and another on the general journal. With this division of labor among several individuals, greater accuracy will be obtained. The fact that several persons are working independently of each other provides a check on the accuracy of the records.
Briefly stated, then, the cash book saves time, assures greater accuracy, and helps to safeguard the cash.

To what extent the cash journal saves time for the accountant can very easily be shown by means of an illustration. Assume that your journal for January, 1922, contains altogether twenty-nine transactions, thirteen of which were for cash received. We will also assume that these cash receipts were entered in your general journal, as shown in Figure 1.

## JOURNAL



Cash Receipts Entered in General Journal
Figure 1. You understand, of course, that only the cash receipts are shown here. All other items, cash payments and noncash items are purposely left out to save space. The important thing to note is the repetition of the word "Cash" and the entering of the amount twice. This all takes time.

Same Transactions in Condensed Form. Since every entry is a debit to the Cash Account, what would be easier than to say that the TOTAL of all cash receipts is a debit to the Cash Account? Each item is, of course, a credit to some other account.

It would be possible, therefore, to condense considerably the cash receipts of Figure 1. Thirteen debits could be left out and one total debit take their place, as shown in Figure 2.

JOURNAL


Cash Receipts Condensed in General Journal
Figure 2. Here you have only one debit to the Cash Account, $\$ 1,637.00$, instead of thirteen, as in Figure 1. Thus, you see, both time and space are saved. The one total debit exactly offsets the numerous detail credits. Figure 3 will help you to understand more easily how the standard cash book should be set up, and how it is posted.

Standard Cash Book With Receipts Properly Entered. Now that the transactions have been condensed it will be an easy matter to enter them in the standard cash book as presented in Figure 3.

Cash Disbursements Recorded in Cash Journal, Right-Hand Page. Thus far we have set up the cash receipts in the cash book, on the left-hand page. Now we shall give you a list of typical cash disbursements for January, 1922, and shall ask you to enter them properly in Figure 4.

## CASH JOURNAL (left page)



The Simple Cash Journal (left page)
Figure 3. Note how every transaction is entered in this cash book. One line is given to each item. These items are added, and the total is posted as a debit to the Cash Account. Each of the items is also posted separately as a credit to the account named in the column headed "Accounts Credited." Note the similarity between this cash journal and the condensed form of the journal in Figure 2.

## The following cash payments were made during January:

Jan. 4 Purchases Merchandise......................................................... $\$ 700.15$
5 Pays rent for January......................................................... 40.00
10 Buys office desk........................................................................................................ 75.00
11 Pays clerk's salary................................................................ 15.00
26 Sends check to General Supply Co...................................... 100.00
27 Purchases fresh vegetables from wagon........................................ 11.85
28 Sends check to Alpha Grocery Co........................................ 30.00
31 Buys horse and wagon............................................................ 150.00
31 Sends check to Michigan Fruit Co........................................ 100.00
31 Sends check to Western Produce Co................................. 120.00
31 Sends check to Wilson \& Co................................................ 55.00

CASH JOURNAL (right page)


The Cash Journal (right page)
Figure 4. This blank form is for your own use and practice. Enter each of the cash disbursements shown on page 4. After you have made the entries, determine the balance between the disbursements side and the receipts side of the cash book. If you enter the disbursements correctly, you will find that the balance is $\$ 1,740.00$. This work is for your practice and need not be sent in to the University.

Use of Columns in Cash Book. Each column in the cash book is used for a specific purpose, as illustrated in Figures 3 and 4. It is, after all, a simple matter to enter transactions properly in the cash book. There is nothing difficult about it; only remember that the cash book is really nothing more than the journal, arranged so as to save time and space.

Note, especially, that the cash book in no way alters the debit and credit analysis of transactions, neither does it change in any way the accounts affected by the transactions. Think of each side of the cash book as a separate cash journal. Make each entry in the cash book just as it would be made in the journal, omitting the unnecessary words and figures. Every cash receipt is a debit to cash and a credit to some other account. Every cash disbursement is a credit to cash and a debit to some other account. This twofold effect of each cash book entry upon the accounts is obvious when you consider how the cash book is posted.

Posting Cash Book. The total cash received during the month is posted on the last day of the month as a debit to the Cash Account. The total cash disbursed during the same month is posted as a credit to the Cash Account. Thus only two postings need be made to the Cash Account, no matter how many entries the cash book contains. Obviously the larger the business the greater is the number of cash items, and consequently the greater is the saving of time if a cash book is used. Posting from the cash book is not complete, however, when these totals have been posted, because those two entries affect only the Cash Account.

Every item must also be posted separately to the other account which is affected, just as it would be posted from the journal. This posting may be done every day or less frequently, depending on the number of items. On the receipts side of the cash book you find a column "Account Credited." In this column is written the name of the account to which a credit must be posted for each item. Instead of having one account for all customers, headed "Accounts Receivable," we shall from now on set up a separate account for each customer. For the time being, then, "Accounts Receivable" account will disappear from the ledger, and a number of separate accounts with customers will take its place.
"Account Debited" Column. On the disbursements side of the cash book you find a column, "Account Debited." In this column are written the names of the individual accounts in the ledger to which the several items must be posted as debits. For example, the item of January 4 must be posted as a debit to the Purchase Account and the item of January 5 as a debit to the Expense Account. The item for the 26th is posted as a debit to the General Supply Company Account. This account is a personal account and is for one particular creditor. It is one of the Accounts Payable accounts. For the present, then, we shall not use an Accounts Payable Account in which all creditors' items are posted, but each creditor will have a separate account.

Use of Folio Column. In order to make the cross reference most useful, the page number recorded in the folio column of the ledger is preceded by a letter to indicate the book of original entry from which it is posted. Thus "J2" means that the item was posted from page 2 of the journal. Likewise, "C3" would mean that the item was posted from page 3 of the cash book.

How Cash Book Saves Time. By posting the total cash receipts as a debit to the Cash Account, and the total cash disbursements as a credit to the Cash Account, we save twenty-two separate postings out of a pos-
sible twenty-four. If these transactions had been posted from the general journal instead of from the cash book, each item would have had to be posted separately to the Cash Account. Now only two totals are posted.

You can easily determine how many separate postings would be saved if we had 1,000 separate cash receipts and 1,000 cash disbursements. By using the cash book we would save 1,998 separate postings to the Cash Account. The larger the volume of business, the greater, therefore, is the advantage of using a cash book.

Is Cash Account Necessary When Cash Book Is Used? Many accountants prefer to abandon the Cash Account entirely when a cash book is used. The cash book then serves as the Cash Account, since the balance of the cash book is the same as would appear in the Cash Account. Some accountants object to this method, however, on the grounds that the ledger is not self-balancing under this arrangement.

Suppose that no Cash Account is used, then in taking the trial balance, it would be necessary to go out of the ledger for the cash balance. The cash book would, of course, have the correct balance for the cash item in the trial balance, but the cash book is a book of original entry-a journaland it is best to confine the trial balance to the ledger. For this reason, it is advised by most authorities on accounting to set up a Cash Account in the ledger, and thus keep the ledger self-balancing.

When Is Cash Book Balanced? The cash book should be balanced at the close of each day's business. This daily balance may be inserted in pencil in the explanation column on the debit side. Thus, the cash balance for each day can be verified by comparing it with the cash balance on the check stubs, or with the cash in the cash register, or the sum of the two. If any errors are made in recording cash book items, they can be discovered and corrected by this daily check.

The cash book is balanced in ink and closed only at the time of posting totals. This posting is usually made at the end of the month, or oftener if the needs of the business require it. At this time the cash balance is set up below the double ruling, ready for the next month's entries. The balance on hand the first of the month is entered in the total column, so that it will be kept separate from the cash receipts, which are entered in the "money detail" column, sometimes called the "net cash" column. The total of the money detail column is the amount to be posted, and the balance at the beginning of the month should not be included in this amount, because the balance is already in the Cash Account.

Advantages of Separate Cash Books for Receipts and Disbursements. The simple cash book with all receipts recorded on the left-hand page, and all disbursements on the right-hand page, answers the requirements of a small business. But in a larger business the volume of cash transactions is much greater. In most concerns the cash receipts usually outnumber the disbursements.

For these reasons the cash book is often divided into two separate books, one for receipts and the other for disbursements. This arrangement makes possible an even greater economy in at least two respects:

First: Several employes can work on the cash books at the same time. This is desirable, not only because a larger volume of work can be accomplished, but also because greater accuracy can be obtained, since each person, in handling only one type of transaction, becomes more proficient and accurate.
Second: Another advantage in having separate books results when they are balanced at the end of the period. The receipts usually outnumber the disbursements. When the receipts and disbursements are recorded on opposite pages in the same book, the receipts side will be filled up much more quickly than the disbursements side. Thus, when the two sides are balanced, a considerable number of right-hand pages will be wasted. This waste can be climinated by using a separate book for cash receipts.
In very large businesses and in concerns with numerous departments, it is frequently necessary to use several cash receipts books and several cash disbursements books. In such cases still greater economy results.

Function of General Journal When Cash Book Is Used. Since cash transactions are entered in the cash journal or journals, it is evident that the usefulness of the general journal becomes somewhat restricted. It becomes the book of original entry for only such transactions as occur infrequently. In all cases where a given kind of transaction recurs often enough to warrant it, special journals are very useful, but there remains the necessity of journalizing in the usual way many transactions thruout an accounting period.

We have seen that the general journal is used in making closing entries (Assignment 6). It is used also in cases where notes are received or given on account, and often in case of adjustments with customers and creditors. It is not used for entering sales and purchases, as these transactions occur frequently; special journals are provided for them, as will be explained in the next assignment.

In this connection it should be noted also, that whenever a business begins operations, it is desirable that the entire investment, including cash, be set up in the journal so that the record will be complete in one place.

## MAIN POINTS IN THIS ASSIGNMENT

Before taking up the problems you will want to assure yourself that you have mastered the essential points of this assignment. We shall restate them for your convenience.

First-Cash transactions occur so frequently in a business that it is advisable to record them in a special book called the "cash journal." In this way the cash is more carefully safeguarded.
Second-The Cash journal has at least four advantages, as shown in the illustrations.

1. Time is saved by posting totals.
2. There is less likelihood of errors.
3. The cash balance can be determined daily.
4. The clerical work can be distributed among several clerks.

Third-The cash journal is nothing more than a part of the general journal, set up in a condensed form. The left-hand page is for receipts, and the right-hand page for disbursements. The forms
shown in this assignment are of the simplest design. These simple forms will be expanded in later assignments into the cash books with numerous columns, such as are used in large businesses.

Fourth-The cash journal is posted thus:

1. Cash receipts and disbursements are posted in total to the Cash Account at the end of the period.
2. Each cash receipt is credited and each cash disbursement is debited, item by item, to the proper account.
Fifth-Separate cash books save time and space in businesses with numerous departments.

Promotion comes from exceptional work.
-Andrew Carnegie.

The problems give you an opportunity to apply the principles of the cash book. Prepare the solutions to the problems while the discussion of the assignment is still fresh in your mind. That is always the best way to clinch a fundamental principle.

1. On March 10, 1922, you purchase from the National Silk Company an invoice of silks amounting to $\$ 3,124.00$. You call their attention to an error they made in the pricing of one item on the invoice. Instead of listing it as $\$ 34.00$, the invoice shows it as $\$ 43.00$. On March 14, the company sends you a credit memorandum allowing you credit for the difference.

One piece of silk, containing 75 yards priced at $\$ 2.00$ per yard, is returned as not a part of the original order, and you are given credit on March 17.

On April 15, you make settlement by giving a 30 -day $6 \%$ note for $\$ 1,200.00$ and a check for both the balance due and the interest on the note for 30 days.
(a) Set up journal entries for each step of the transaction, assuming that you have only one book of original entry, the general journal. Number your journal entries $1,2,3$, etc.
(b) Now assume that you have two books of original entry, a general journal and a cash book. Which of these transactions will be entered in the general journal and which in the cash book? In giving your answer refer to the journal entries by number.
2. Mr. Crane opens a retail clothing store. He decides to use a cash book and a general journal. On January 2, 1922, when he began business, he had the following assets: Cash, $\$ 2,500.00$; Auto Truck, $\$ 900.00$; Furniture and Fixtures, $\$ 800.00$; Notes Receivable, $\$ 200.00$. How would this original investment be entered on the books?
3. J. Evans, who buys and sells products, began his business on December 1, 1921. You are to keep his books for him in the operation of the business. Mr. Evans asks you to use a cash book for all cash transactions and a general journal for all other transactions. He also asks that separate personal accounts be kept in the ledger along with the other necessary accounts.

Enter the following transactions for December, 1921, in the proper books of original entry. Send in the cash book properly balanced and closed, and the general journal entries for noncash transactions. His original investment includes $\$ 1,000.00$ cash, store fixtures valued at $\$ 400.00$, and a promissory note for $\$ 500.00$ signed by J. Wall, due on December 16, 1921, without interest.

[^3]2 Gives his promissory note for $\$ 500.00$, payable in 20 days, to M. Moll in full payment of merchandise purchased on December 1.
2 Buys postage stamps for $\$ 10.00$ cash.
3 Sells to C. L. Wilson on account, merchandise valued at $\$ 250.75$.
5 Purchases merchandise for cash, \$110.17.
6 Purchases merchandise for cash, $\$ 65.00$.
7 Sells merchandise for cash, to L. E. Emery, \$35.70.
7 Receives C. L. Wilson's 30-day note for $\$ 200.00$ in part payment of his account on December 3, and the balance in cash. (This requires two entries, one in the journal and one in the cash book.)
10 Purchases on account from B. E. Carr, merchandise valued at $\$ 172.38$.
10 Issues a check to the Illinois Central Railroad Company for $\$ 6.50$ in payment of freight on the above merchandise. (Debit Purchases.)
12 Returns, as unsatisfactory, part of the merchandise purchased on December 10 from B. E. Carr, for which the latter credits him with $\$ 18.00$.
13 Sells merchandise for cash, $\$ 254.38$.
16 Receives check from J. A. Abbey for $\$ 175.00$ in full payment of latter's purchase on December 2.
16 Receives cash from J. Wall, $\$ 500.00$, in payment of note due to-day.
17 Sells merchandise for cash, $\$ 122.15$.
20 Gives a 15 -day note to B. E. Carr in payment of balance owing on purchases of December 10.
22 Pays cash to M. Moll, $\$ 500.00$, for note due to-day.
23 Buys merchandise for cash, $\$ 41.00$.
29 Sells to L. E. Emery on account, merchandise valued at $\$ 98.47$.
30 L. E. Emery returns, as unsatisfactory, merchandise he purchased on December 29, for which Mr. Evans allows him $\$ 7.29$ credit.
30 Gives F. M. Nichols, clerk, check for $\$ 150.00$ for salary for month of December.
30 Gives check to S . T. Allen in payment of bill for advertising, $\$ 6.00$.
30 Sells merchandise for $\$ 254.00$ cash.
Note: The amount of merchandise on hand December 31 is $\$ 381.78$.
4. Post these journal and cash book entries to the ledger accounts. Send in the ledger accounts.
5. Prepare and send in a trial balance of balances of December 31, 1921, before closing.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assignment 8 MERCHANDISE RECORDS

I CANNOT SEE how a young man can better fit himself for an executive position than by a study of accounting.
Certainly, the ability to analyze statements, to understand figures and reports, is a decided advantage to men in supervisory positions. The man who has had this training and can see back of the figures, certainly has a decided advantage over the man who has not had this training.

A VON SCHLEGELL
Vice President, Hupp Motor Car Corporation

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-JointVentures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## MERCHANDISE RECORDS

## PURCHASE JOURNAL-SALES JOURNAL

You are now familiar with the use of the journal. You understand also that it has become desirable in modern accounting to have special journals, where there are numerous transactions of a similar nature, such as cash receipts and cash disbursements.

In this assignment we shall continue the discussion of special journals and show the effectiveness of their use in recording and summarizing purchase and sales transactions.

Before illustrating and describing the purchase journal and the sales journal, it will be interesting to mention briefly some of the business practices observed in the purchasing department and in the sales department of a modern commercial organization.

Handling of Purchases. Purchases of merchandise or of raw material usually follow a more or less fixed routine. This is true especially in larger concerns, where authority is distributed to various departments. As shown in Figure 1, every purchase goes thru a complete cycle before it is recorded on the books.

Take for example the purchase routine of a manufacturing plant. It starts in the storeroom. The stores clerk fills out a purchase requisition for material that is running low in the storeroom. This operation is designated " 1 " in Figure 1. This requisition is merely a request for more goods. It shows the grade of goods needed, the amount, and the delivery date. This requisition is then sent to the purchasing department.

On receipt of the requisition the purchasing department checks it with the last previous order so as to determine wisely the grade of goods to be ordered, the amount, the price, and from whom to buy, Finally the purchasing department issues a purchase order shown as "2" in Figure 1. One copy goes to the company from whom the goods are to be purchased, another copy is filed in the purchasing department, and a third goes to the receiving clerk. This copy very often has the quantities omitted.

The order is filled. The goods arrive as shown by " 3 " in Figure 1 and are checked over by the receiving clerk against the shipping ticket. He records on the purchase order the quantities of material received, and returns the purchase order, as a sort of report, to the purchasing department. This operation is indicated by " 5 ."

In the meantime the purchasing department has received a bill, called the "purchase invoice." (" 4 " in Figure 1.) This invoice is checked with the original purchase order and with the receiving clerk's report on what was received. If necessary, then corrections are made. Finally the invoice is 0 . K'd and sent to the accounting department to be recorded,
or a posting ticket is made out and sent, in which case the invoice is kept in the purchasing department. This step is shown by "6." In Figure 2 you have a reproduction of invoice, together with the requisition and order.


The Purchase Cycle
Figure 1. Start in the storeroom and follow the arrowed line. It represents the routine of a purchase before it is recorded on the books by the accounting department.

The numbers will help you to interpret the chart, as explained in the discussion.
How Purchases Are Recorded. The work of the accountant begins where the purchase cycle stops, ie., with the O.K'd invoices or posting tickets. It is from these invoices or tickets that the accountant secures the information that he records on the books.

If the purchase is for cash, he enters it in the cash book along with the other cash disbursements.

If the purchase is made on account it may be recorded in the general journal. When, however, these purchases become numerous, too much
time is consumed in setting up each transaction in the general journal. A shorter way is provided. All purchases on account are recorded in a separate book, called the purchase journal.

3

Purchase Invoice from Outside Supply House to the Buyer.
(Sometimes requested in duplicate or triplicate, according to requirements of office system.)

NATIONAL STEEL Co.
Pittsturg Pa.
INVOICE


Sold to Amerces Auto Co
Address Chisagg Ill.



Purchase Order from Purchasing Department to Outside Supply House.

Advantages of Purchase Journal. The chief merit of the special purchase journal is that it saves time, in the same way that a cash journal saves time. In the case of cash receipts, for example, every transaction is a debit to the Cash Account. The cash journal does away with all these detail charges by providing a total at the end of the month for all cash received.

The situation is exactly the same with purchases. If purchases are entered in the general journal, each transaction must be charged to the Purchases Account separately. Why make all these separate charges? Why not record all purchases together in a special journal, and then charge the total at the end of the month to the Purchases Account?

That the purchase journal is a real timesaver is convincingly shown in Figures 3, 4 and 5. Notice the general journal entries in Figure 3 for several purchases on account. Every one is a debit to the Purchases Account. In Figure 4 you have these items posted to the ledger accounts, and you note that the Purchases Account contains four separate items.

## JOURNAL

| DATE |  | FOLIO | EXPLANATION | DEBITS | CREDI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1922 \\ & \text { Jan. } \end{aligned}$ | 11 |  | Purchases <br> Northern Milling Co. <br> Terms, n/30 | $100 \mid 00$ | 100 |  |
|  | 17 |  | Purchases McKenzie Produce Co. Terms, n/60 | 20000 | 200 |  |
| " | 25 |  | Purchases <br> Grocery Supply Co. <br> Terms, $2 / 10--n / 30$ | 30000 | 300 |  |
| " | 31 |  | Purchases Swift \& Co. Terms, $2 / 15-$ - $/ 45$ | 25000 | 250 |  |

Journal Entries for Purchases on Account.
Figure 3. Each of these four purchases requires three lines in the journal, one for the debit, one for the credit and another line for the explanation. The same amount must be written twice. This would consume much time if a business made numerous purchases, and each of these would have to be placed in the journal as a double entry. Much journal space would be used up, and what is more, the journalizing would consume a great deal of time.

When these journal entries are posted to the ledger, the accounts will appear as in Figure 4.

LEDGER
Purchases


Northern Milling Co.


McKenzie Produce Co.


Grocery Supply Co.

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |

Swift \& Co.

| $192 \mid$ | $190 \mid$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Ledger Accounts after Postina

Figure 4. Notice that four separate postings must be made to the Purchases Account. Suppose that instead of four you had forty. Much time would be consumed in posting. the transactions separately to the Purchases Account. In order to save time in posting, accountants have devised what is known as the purchase journal, shown in Figure 5.

Purchase Journal. The shorter method is given in Figures 5 and 6. The purchase journal shown in Figure 5 is in reality the journal in condensed form. The difference is that ONE line is used for each transaction instead of three, and the amount is written only once.

## PURCHASE JOURNAL

| $\underset{(1)}{\text { DATE }}$ | L. P. <br> (2) | ACCOUNT CREDITED (3) | ADDRESS (4) | TERMS (5) | INVOICE <br> (6) No. | POR. ACCT. <br> (7) Dr. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|   <br> 1922  <br> Jan. 11 <br> " 17 <br> " 25 <br> 21 31 <br> " 31 |  | Northern Milling Co. McKenzie Produce Co. Grocery Supply Co. Swift \& Co. | 48-Walnut St. <br> 20 W . Pront St. <br> 176 North Ave. <br> 2000 S. Western Av. | $\begin{aligned} & N / 30 \\ & N / 60 \\ & 2 / 10-\mathrm{n} / 30 \\ & 2 / 15-\mathrm{n} / 45 \end{aligned}$ | 1 2 3 4 | $\begin{aligned} & 100.00 \\ & 200.00 \\ & 300.00 \\ & 250.00 \end{aligned}$ |
|  |  | Total purchases | Debit purchases |  |  | 850.00 |

The Purchase Journal.
Figure 5. The facts in the purchase journal are kept in orderly arrangement by rulings. Seven distinct columns are provided-each used for a particular purpose. These are for the most part self-explanatory.

The columns in the purchase journal are for the most part selfexplanatory. Rulings help to keep the facts in orderly arrangement. Every column, as you see, is used for a particular purpose. Column 1, as shown in Figure 5, is for the date of the invoice. Sometimes another column is added for the date of entry. Column 2 is for the page in the ledger to which the item is posted. In Column 3 is written the name of the creditor whose account is to be credited.

The addresses, in column 4, are important, because a certain amount of correspondence is always carried on with creditors. Column 5 contains the terms of the purchase, which specify when the bill must be paid, and the per cent of discount allowed for prompt payment. "N/30" means "net 30 days"; in other words, the full amount must be paid within 30 days. " $2 / 10-\mathrm{N} / 30$ " means " 2 per cent in 10 days, net 30 days"; that is, deduct 2 per cent of the invoice if you pay within 10 days, otherwise the full amount is due within 30 days.

Column 6 is for the number of the invoice. The purchaser numbers his purchase invoices consecutively, so that he can refer to them by number, rather than by date or name of creditor.

Time Saved in Posting. When the transactions are posted from the purchase journal, Figure 5, to the ledger, the accounts will appear as shown in Figure 6.

LEDGER


Ledger Accounts after Posting the Purchase Journal.
Figure 6. You will note that the Purchases Account here does NOT contain FOUR SEPARATE debit items as it did in Figure 4, when the general journal was used, BUT only ONE amount, which is the TOTAL purchases for the month. The creditors' accounts remain the same as in Figure 4.

The purchase journal expresses a debit to the Purchases Account and a credit to the several personal accounts with creditors. The credits are made currently, and item by item. They are posted at short intervals, usually every day or so, in order that the personal accounts of the creditors will be kept constantly up to date.

The total debit will be posted periodically, say at the end of every month, before a trial balance is taken. Thus much time is saved by posting the total to the Purchases Account.

Double Entry Principle Not Violated. At first glance it may seem that the entries in the purchase journal violate the double entry principle, namely, that for every debit there must be an equal offsetting credit. When you consider, however, that for all the separate credits made to the creditors' accounts, one total debit is made to the Purchases Account, you will easily see that the books are kept in balance. At no time, however, is the ledger really in complete balance until the total of the purchase journal is posted to the Purchases Account at the end of the period.

Handling Cash Purchases. A cash purchase is entered in the cash book disbursements side. The account debited is Purchases.

A concern may, however, wish to know how much business they do with every creditor. To secure this information it may enter all purchases in the purchase book, both the purchases for cash and those on account. Even tho a purchase is paid for immediately in cash, it is treated just as if it were on account. The transaction is entered in the purchase book and posted to the Purchases Account in the debit total. It is posted separately, as a credit, to the creditor's account.

The cash payment is then recorded in the cash book, from which the item is posted as a debit to the creditor's account, instead of a debit to the Purchases Account. In this way a concern is able to know just how much business it has had with each of its creditors during the period.

Moreover, many firms want a record of purchases by departments. In such a case they enter all cash purchases in the purchase journal. Thus ALL purchases will be recorded in one place, and it will be easier to make an analysis of purchases by departments. Where this plan is followed, a special column is usually provided in which cash purchases may be entered and totaled, so that disbursements for cash purchases may be entered in the cash journal daily.

Items Not Entered in Purchase Journal. Purchases of commodities or supplies on account to be used in the business itself are not entered in the purchase journal. Usually another book is used for such transactions, namely, the invoice or voucher register, which will be presented in a later assignment.

Suppose you purchase an office desk on account for $\$ 100.00$. The accounts affected are the Asset Account, Office Furniture, and the Liability Accounts Payable. The Purchases Account is not affected. For this reason this transaction would not be entered in the purchase journal. A general journal entry must be made thus:

## RECORDS OF SALES

Selling Process Analyzed. After goods have been purchased, and purchases recorded on the books, the next important operation is the selling of these goods at a profit. Most businesses have a sales department which is under the direct supervision of a sales manager. There are so many different types of business that it would be impossible to describe here a sales department organization that would fit every case. Every business develops its own sales organization to meet its own needs and the needs of its customers. For example, in the latter part of 1921, Armour \& Company put on a lively contest among its salesmen. Within two weeks the company had placed on its books the names of 6,142 new customers.

Whatever the organization may be, whether it be large or small, for a wholesale or a retail business, whether goods are sold thru the mails or over the counter, there are certain definite functions in sales transactions that demand special attention. They are as follows:

1. Getting the orders
2. Entering the orders on the books
3. Filling the orders and delivering the goods

Sales Invoices Give Accounting Information. The first and third of these functions are tied up with business management, and may be passed over at this point. Mention should be made, however, of the sales invoices, as illustrated in Figure 7. These invoices have come to be more or less uniform, depending on the needs of a particular business. All sales invoices should be drawn up in such a form as to include all the necessary information, such as date, amount, quality, terms, whether for cash or credit, when to be paid, when to be delivered, etc. All this information should be included, because the sales invoices must furnish to the accountant all details necessary in making the proper record.


The Sales Invoice.
Figure 7. Note the number in the upper left hand corner. This number is a great help in matters of reference and correspondence. It is much easier and more definite to speak of "your bill No. 24," than to try to identify it by date or otherwise. The advantage of using a number as an identification symbol is obvious, especially in a business like Armour \& Company which handles thousands of such invoices every year. This number will also be recorded in the sales journal, as shown in Figure 10.

These sales invoices, if for sales on account, are passed on to the department for analysis and O.K. If the sale is to a new customer, his credit standing is determined from information collected by the credit department. If the sale happens to be to an old customer, the credit department looks up his standing, to see whether he has paid past bills promptly, whether credit can be extended, or whether the old bills should be paid first.

JOURNAL

| DATE |  | POLIO | EXPLANATION | DEBITS | CREDI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1922 \\ \mathrm{Jan} . \end{gathered}$ | 6 |  | $\begin{gathered} \text { Acme Grocery Co. } \\ \text { Sales } \\ \text { Terms, } \mathrm{n} / 30 \end{gathered}$ | $30 / 00$ | 30 |  |
| " | 12 |  | Max Simpson Sales Terms, $\mathrm{n} / 30$ | 7500 | 75 |  |
| " | 12 |  | Jackson Bros. Sales Terms, $2 / 10-\mathrm{n} / 30$, | 80,00 | 80 |  |
| " | 18 |  | Johnson \& Co. Sales Terms, $2 / 10-\mathrm{n} / 20$ | 20000 | 200 |  |
| " | 26 |  | White \& Smith Sales Terms, $2 / 10-n / 20$ | 17567 | 175 |  |
| " | 30 |  | $\begin{aligned} & \text { City Club } \\ & \text { Sales } \\ & \text { Terms, } 4 / 10-\mathrm{n} / 45 \end{aligned}$ | 31000 | 310 | 00 |
| " | 31 |  | William Brown Sales Terms, $3 / 15-n / 30$ | 11073 | 110 | 73 |

Journal Entries for Sales on Account
Figure 8. If we had only one book of original entry, we would have to enter our sales on account in the general journal, as shown here. Each sale would require a double entry in the journal; hence the operation of journalizing itself would consume considerable time.
How Sales Are Recorded. As was explained in Assignment 7, on the cash book, all cash sales are brought into the accounts thru the cash book. There are circumstances which will make it desirable to record cash sales in the sales journal, but this will be taken up later. It is obvious that the cash received from sales must appear in the cash book, either in
detail or in total amount. It is therefore the sales on account that require additional explanation. As in the case of purchases on account, all sales on account may be handled in one of two ways, either thru the general journal or thru a special sales journal.

As long as a business continues to have only a few sales on account, it might just as well enter them in the general journal. When, however, these transactions become numerous, too much time will be consumed in journalizing and posting. Think of the time that Armour \& Company would have wasted if they had entered each of their 6,142 new sales for a period of two weeks in a general journal, besides all the sales to old customers. Then add to that all the time it would have taken to post each of these items separately to a Sales Account.

General Journal Consumes Time. To show how the general journal entries consume time, we have set up several typical transactions in the general journal, Figure 8, and posted them as separate items to the accounts in Figure 9.

LEDGER
Sales


Acme Grocery Co.


Max Simpson

| 1922 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jan. | 12 | Sold on Account | $\|\|00\|$ | $\mid$ | $\mid$ |

Jackson Bros.


Johnson \& Co.

| Jan <br> Jan | 18 | Sold on Account | $\|\|200\| 00\|$ | $\mid$ | $\mid$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

(Accounts continued on next page)

White \& Smith


City Club


William Brown

| 1922 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Jan. | 31 | Sold on Account |  | $110\|73\|$ | $\mid$ |  |

Ledger Accounts after Journal Entries Are Posted.
Figure 9. Posting also takes much time. Your attention is directed especially to the Sales Account with its seven separate credits. These seven entries would be avoided if a sales journal were used, as shown in Figure 10. Think of the time that the sales book saves annually for thousands of concerns. One of the large department stores in Chicago carries close to 200,000 customers' accounts on its books. Assuming that each customer makes only 10 purchases each month, you can readily appreciate how much time would be consumed in journalizing all such transactions.

Shorter Method of Recording Sales. These same sales can be entered in a shorter and more economical way in a sales journal, which is often called a sales book, reproduced in Figure 10. Only one line is used for each item, and the amounts are written only once.

SALES JOURNAL

| $\underset{(1)}{\text { DATE }}$ | $\underset{(2)}{\mathrm{L} . \mathrm{F}}$ | accoont debited <br> (3) | $\underset{(4)}{\underset{\text { ADDRESS }}{ }}$ | $\underset{(5)}{\text { TERMS }}$ | $\underset{(6)}{\text { SALES NO }}$ | MDSE. SALES (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 22 23 24 24 26 27 28 28 |  |

The Sales Journal.
Figure 10. You have here a blank sales journal for your own practice. Enter in it the same transactions that were set up in Figure 8, and you will see at once that a sales journal is a big timesaver. Then close the sales journal as we have closed the purchase journal. If you have made the entries correctly, you will have a total of $\$ 981.40$.

Posting Sales Journal. After you have entered the transactions in the sales journal, post these items to the ledger accounts in Figure 11. The total sales is posted to the Sales Account as a credit, and each of the items is posted to a personal account of a customer as a debit. (Do not send this work in for grading.)

## LEDGER

Acme Grocery Co.


Ledger Accounts.
Figure 11. These accounts are provided for your practice. Post the items which you have entered in the sales journal, Figure 10, to the above accounts. Thus by posting the items yourself you will learn how a sales journal should be posted. Often you can learn an operation quickest by actually doing it.

## SELF-TEST QUESTIONS

1. What are the advantages of entering the items in the sales journal instead of the general journal?
2. Suppose that we had 70 sales on account for January instead of 7 , how many separate postings to the Sales Account would we have saved?

Transactions Entered in Sales Journal. Only sales of merchandise on account are usually entered in the sales journal. It may be desirable also to enter the cash sales in the sales journal for the sake of having a complete record of sales, especially when sales are recorded by departments. This method, however, means a duplication of work, since cash sales would be entered in both the cash book and the sales book, but posted only from the cash book. It is better, therefore, to enter only sales on account in the sales book, and all cash sales in the cash book. Then when the sales manager wishes a complete record for the month, a recapitulation sheet can be made out, showing details.

Flexibility of Accounting Systems. No doubt you have already been impressed with the fact that an accounting system is not a fixed and rigid thing. It permits of expansion to suit the needs of a particular business organization. As a business grows, the accounting system grows with it.

For example, it has been explained how accounts may be kept by the use of the ledger alone, the facts being classified thru direct entry into the accounts. Then we saw the advantage of expanding the system to include the use of a journal as a book of original entry to precede the ledger. These two books would have sufficed for the smaller business, but reasons of convenience and economy demanded further expansion of the accounting machinery.

The next step was to break up the journal, separating it into distinct books of original entry for such classes of transactions as are often repeated. We have seen the cash book, sales book, and purchase book developed in this way. These are the fundamental books of most accounting systems for trading and manufacturing concerns, but for the purpose of showing how an accounting system can be extended still farther, let us explain a few special books which greatly facilitate the work of keeping track of purchases and sales.

How Sales Returns May Be Recorded. Sales returns may be recorded in the general journal, provided the number of such transactions is small. Figure 12 shows a sales returns recorded in the general journal.

JOURNAL

| DATE |  | FOLIO | EXPLANATION | DEBITS | CREDITS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline 1922 \\ & \text { Jan. } \end{aligned}$ | 30 |  | Sales Returns Jackson Bros. <br> Goods of invoice 24 returned as unsatisfactory because of error in weight | 2000 | 2000 |

Journal Entry for Sales Returns.
Figure 12. This entry expresses an increase in the Sales Returns Account and a decrease in Jackson Brothers' (debtor) account. This is just what the situation means; here is one more return of goods, i.e., an increase in the quantity that has come back; here is also a credit (reduction) to the debtor's account, for Jackson Brothers cannot be expected to pay for goods which they have returned.

Sales Returns Book. If this type of journal entry occurs many times in the course of a year, time will be saved by a sales returns book. The general style of such a book would be much the same as that of other special journals, but the headings of the columns and the posting from it would be somewhat different. Figure 13 shows a typical sales returns book.

## SALES RETURNS BOOK

| DATE <br> (1) | $\begin{aligned} & \text { PAGE } \\ & \text { (2) } \end{aligned}$ | ACCOUNT CREDITED <br> (3) | ADDRESS (4) | INVOICE <br> (5) | CAUSE <br> (6) | AMOUNT <br> (7) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jan 31 | 37 | Jackson Bros. | City | 24 | Error in weight | 20 | 00 |
|  |  | etc. | Total |  | (r. Sales returns |  |  |
|  |  |  |  |  |  |  |  |

Sales Returns Book.
Figure 13. Note that the columns which are most essential to the primary purpose of the book are (3) and (7), the name of the account and the amount. The date and address are shown merely for convenience of reference; page and invoice numbers are shown as a matter of cross-indexing-of "tying together" this return with the personal account and with the original sales invoice. In the column headed "Cause" is given the reason for the return.

The sales returns book is posted by debiting the total to the Sales Returns Account at the end of the period. Each item is posted separately to the proper customer's account.

Sales Allowance Book. When a business allows credit to customers for numerous adjustments without requiring the return of the goods, it would be a saving of time to record all these transactons in a sales allowance book. This would be almost a duplicate of the sales returns book. The total of the amount column would be posted at the end of the period to a Sales Allowance Account instead of a Sales Returns Account. The accounts credited would be the personal accounts of the debtors, as in the sales returns book. While there may be in some places a fairly large number of returns, it is not very likely that an allowance book would be needed. In such cases, allowances and returns are very often entered in one book, called the sales returns and allowances book.

Purpose of Credit Memos. When customers return goods for any reason, they expect to receive credit for them, and have their account (debt) reduced correspondingly.

They will naturally desire some notification of the receipt of the returned goods, and of your decision to allow them credit. This notice is termed a credit memorandum, reproduced in Figure 14.


Credit Memorandum
Figure 14. The credit memo has much the same form as the sales invoice of Figure 7. Its meaning, however, is different. Instead of saying, "These are the articles you bought," as does the sales invoice, the credit memorandum says in effect: "These are the articles you returned, for which we allow you credit."
The credit memorandum may also represent a sales allowance. It may be given to a customer who finds his goods damaged, or of short weight, or of inferior quality, when the customer is not required to return the goods, but receives credit. The memorandum slip will show the amount of credit allowed. Usually two copies are made out. One goes to the customer and the other is retained by the business and is the basis for entries on the books. Some of the larger retail houses allow the customer to cash in these credit slips, if he so desires. Especially is this true when the sale was originally made for cash.

Two Types of Credit Memos. There are two kinds of credit memos, the one we receive and the one we give. The one we give is usually called a sales credit memo and the one we receive a purchase credit memo.

A credit memo in our hands is a purchase credit memo. It means that we have returned goods, or are allowed credit. Our creditor, by means of the memo, grants us permission to deduct the amount in remitting for our purchase. This credit memo becomes the basis for an entry on our books. The journal entry for this credit memo would be as follows:

$$
\begin{gathered}
\text { Harrison Hunt } \\
\text { Purchase Returned ..................................................................................................................... } \$ 35.00 \\
\text { Defective wringers from their invoice, 4,639, our } \\
\text { purchase number, } 40,895
\end{gathered}
$$

This, we see, expresses a decrease (debit) to a creditor's account, and an increase to Purchase Returns Account.

Purchase Returns Journal. If there are many purchase returns, a purchase returns book may be brought into use. Entries are made in this book from the credit memos that we hold. However, since there are
generally fewer creditors than debtors on our books, for the reason that goods are bought in larger lots and parceled out in smaller portions, it is unlikely that there would be as much need for a separate purchase returns book as for a sales returns book. Most business houses, therefore, have only one returns book; namely, a sales returns book.

Special Form of Sales Book. Before summarizing this discussion of merchandise records, it will be interesting to note some modifications of the books mentioned.

Instead of writing each sale in a sales book, many concerns make a carbon copy of each sales invoice. These copies are bound in a loose-leaf binder, and arranged in a strictly numerical order. Thus we have, with very little additional effort or cost, the equivalent of a sales book.

The posting to the personal accounts can be done just as well from the carbon copy invoices which are filed, as from a written book, since, by the use of the adding machine, the total of the sales can be easily obtained. A memorandum is made of this total on the last invoice for the period, or on a special recapitulation sheet, and posted from this invoice or sheet to the ledger, just as the total from the usual bound sales book.

Special Forms of Sales Returns Book. With our credit memos the same method of time saving may be carried out; the sales returns book might then become a loose-leaf volume made up from carbon copies of credit memos. The posting would not be different from the descriptions already given.

## MAIN POINTS IN THIS ASSIGNMENT

Every assignment in your course takes you one step forward in your understanding of accounting practice. This assignment is a continuation of the special journal idea. In Assignment 7 you had the special cash journals. Here you have two more special journals, one for purchases and one for sales transactions. Let us review briefly the important points about each of them as they have been presented in this assignment.

First-The advantages of merchandise records are as follows:

1. They save time for the accountant, because they do away with numerous general journal entries.
2. They provide valuable information for the proprietor and manager.

Second-These special merchandise records are set up in simple forms, similar to the general journal but more condensed.

Third-As a general rule, only certain transactions are entered in these special journals:

1. Purchases of merchandise on account are recorded in the purchase journal.
2. Sales of merchandise on account are entered in the sales journal.
3. Entries are made from invoices and sales tickets which are commonly used in the preliminary purchase and sales routines of a business.
Fourth-Accounting systems can be extended still farther, by the use of other special journals, when transactions are numerous, for example:
Sales Returns Book-Sales Allowance Book.
Purchase Returns Book-Purchase Allowance Book.
Entries are made in these books from credit memos.
In Assignment 9 these special journals will be expanded so that they can be used with controlling accounts.

Put energy and decision and unfaltering belief back of your will, and thereby gain a power that does not recognize the possibility of failure.
-Irving R. Allen.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 8

The following questions and problems are based for the most part on the discussion of this assignment. They also involve accounting principles of preceding assignments, in this way serving as a test of your ability to retain fundamental points. Send in solutions to any four of the following problems.

1. Mr. Thomas Ryan owns and operates a small retail dry goods store. Fifty per cent of his sales are on account, and about 75 per cent of his purchases are on thirty to sixty days' time.

He also receives notes from such customers as wish extension of time. In his merchandising he allows 2 per cent discount to customers for payment within ten days, and takes advantage of discount on purchases whenever possible. Up to this time he has used only one book of original entry-the general journal.

What better method can you suggest than the one he is using? State the advantages of your method.
2. On June 30 , 1921, he receives a $\$ 200.00,30$-day note, without interest, from Mr. Clark, one of his customers, to cover Mr. Clark's open account.
(a) Show the entry Mr. Ryan will make on his books when he receives this note.
(b) What entry will he make when Mr. Clark pays this note on July 30, 1921 ?
(c) On July 9, he receives a credit memo for $\$ 25.00$ from the American Thread Company for a shortage in his order of thread purchased on June 30. Set up the entry for this transaction.
(d) On July 12 he gives a credit memo for $\$ 12.75$ to L. M. Casey, one of his customers, for a returned sale. How will this transaction be handled on Mr. Ryan's books?
3. From the transactions and comments below, make necessary entries in the journal, cash book, purchase book, sales book, and sales allowance book. Send in these books of original entry.

Oct. 1, 1921, Daniel Roberts, a retail lumber dealer, began business by investing $\$ 2,000.00$. (Enter in journal as original investment, also enter in the total column of the cash book.)
1 Gave his six-months' note at 6 per cent to Wm. Hurd in exchange for $\$ 2,000.00$ in order to obtain sufficient current funds.
1 Paid rent for October, $\$ 100.00$.
3 Bought, F.O.B. mill, one car lumber on account from Eastman, Gardiner \& Co., Laurel, Miss., for $\$ 484.00$.
6 Bought an auto truck for $\$ 2,000.00$ cash.
8 Bought office furniture for $\$ 600.00$ cash.
10 Received from Eastman, Gardiner \& Co. a credit memorandum for $\$ 27.00$ because of inferior grade lumber received on October 3.
12 Gave Eastman, Gardiner \& Co. a 30-day 6 per cent note in full of account.

15 Paid $\$ 20.00$ to laborers for unloading lumber. Debit Purchases.
18 Sold to Paul Meredith on account lumber for $\$ 507.20$.
20 Bought office supplies of Oxford Stationery Co. on account, \$23.70. These supplies are used up during the month and should be considered as an expense.
22 Bought, F.O.B. mill, one car lumber on account from Kola Lumber Co., Kola, Miss., for \$446.56.
25 Sold for cash lumber for $\$ 5.25$.
27 Issued a credit memorandum to Paul Meredith for $\$ 16.20$ as an allowance for lumber sold on October 18.
29 Paid $\$ 11.00$ for labor for unloading car of lumber (debit Purchases Account thru the cash book).
31 Sold to Vernon Winkle on account $\$ 308.00$.
Post these transactions to ledger accounts of your own. Do not send in your accounts; we can tell from your trial balance whether or not your accounts are correct.
4. Prepare and send in the trial balance, before closing.
5. Prepare and send in a profit and loss statement for the month of October, and a balance sheet as of October 31, 1921. Inventory of lumber October 31, 1921, amounted to $\$ 471.68$.
Make closing entries in the journal, and post them to the ledger accounts. Do not send in the closing entries.
6. Take a trial balance after closing. Send in this trial balance.

Note: The journal entries and ledger entries required in this problem need not be sent in, but the University will include these in the model solution which will be mailed to you.

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 9 <br> SUBDIVISION of the LEDGER

THE men of big business are beginning to realize more than ever before the absolute necessity of accurate and dependable accounting information, and the best managed concerns are demanding not only Modern Accounting Systems, but thoroly trained accountants who understand accounting theory and practice and who can furnish them the information necessary to successful management.
W. A. LANDERS

Auditor and Credit Manager
The Coca-Cola Company

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN <br> ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promisșory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## SUBDIVISION OF THE LEDGER

## CONTROLLING ACCOUNTS

In a small concern with few transactions, two books of record would usually be sufficient. All transactions would then be entered in the journal, and all accounts would be kept in the ledger.

When a business grows larger and transactions become more numerous, it is necessary to provide devices that will save time and assure greater accuracy in keeping the records. That is the reason for special journals, as explained in Assignments 7 and 8. Like transactions are set apart in special books of original entry. Cash transactions are entered in the cash book, sales in the sales journal, and purchases in the purchase journal.

Several Books of Original Entry Used. The entries in these books are totaled, and these totals can be posted to the accounts much more quickly and easily than the many separate items. Transactions that cannot be entered in special journals will be handled thru the general journal. As a result, we have several books of original entry from which postings are made to the ledger, instead of only one.


The Subdivision of the Journal
Figure 1. This chart gives you a short summary of what was covered in Assignments 7 and 8. Instead of having one book of original entry, the journal, we now have four. In this assignment we shall see how the general ledger is subdivided by the use of subsidiary ledgers.
Need for Subdivision of Ledger. Thus far in the course our attention has been confined to the journal and its subdivisions. The ledger likewise may be subdivided, and for the same reasons. As the number and variety of transactions increase, the ledger will sooner or later be filled up with many detailed accounts. The trial balance will become unwieldy, and the danger of making errors will increase.

For these reasons accountants have devised a plan of subdividing the ledger. Accounts of a similar nature are taken out of the ledger and set off by themselves in what is called a subsidiary ledger.

To illustrate: Suppose that a business keeps fifteen separate expense accounts, one for heat, one for light, another for salaries, advertising, etc. It will under such circumstances be desirable to take these detail expense
accounts out of the general ledger and set them apart in a subsidiary ledger, called the expense ledger.

Another concern, engaged in manufacturing, we will assume, buys twenty different kinds of material. Each kind of material will be recorded in a separate account. All of these material accounts are then grouped in a subsidiary ledger, called the materials or stores ledger. These detail records are all subsidiary to the general ledger.

Subsidiary Ledgers for Personal Accounts. Since a large part of modern business is done on a credit basis, it follows that the average sized concern will probably have numerous personal accounts with customers and creditors. If these personal accounts are kept in the general ledger, along with the other accounts, such as cash, buildings, delivery equipment, etc., the ledger will soon become unwieldy.

When the accountant prepares the balance sheet, for example, he must go thru the general ledger, determine the balance for each customer, and then add these balances together before he can determine the total amount due from customers, which is the amount for the accounts receivable item in the balance sheet. The same difficulty will exist in determining the amount for accounts payable.

Furthermore, the general ledger trial balance will be exceedingly long, and the work of securing a balance becomes a laborious task. The handling of so many accounts by one person, who is in charge of the general ledger, may easily result in errors, which it will be difficult to trace.

Accordingly the personal accounts of customers are taken out of the general ledger and set up in a subsidiary ledger called the accounts receivable ledger. This ledger is sometimes referred to as the customers' ledger, or sales ledger. Likewise the personal accounts of creditors may be taken out of the general ledger and set apart in a subsidiary ledger, sometimes referred to as the creditors' ledger or purchase ledger.

For purposes of illustration let us assume that on June 30, 1921, our general ledger contains the following customers' balances:

| B. L. Crowe.........................................-. $\$ 485.00$ |  |
| :---: | :---: |
|  |  |
| L. M. Brown. | 700.00 |
| Oscar Green. | 150.00 |
| Wm. Mobley. | 238.00 |
| O. Long \& C | 75.00 |
| Henry Weeks | 100.00 |
| A. C. Clancy | 210.00 |

Our business is growing, and as it increases we find it desirable to develop a separate ledger for customers' accounts. We cannot, however, merely remove these accounts, and set them off in a subsidiary ledger, without having something to take their place in the general ledger. If we put nothing in their place the ledger will be thrown out of balance. We therefore close each of these customers' accounts by means of a journal
entry. Since each of these accounts in the general ledger has a debit balance, it will be necessary to credit each account in order to close it, and at the same time we must set up a representative account in the ledger, to which we will debit the total. In this way the equality of debits and credits is maintained in the ledger. The journal entry will appear as follows:
June 30, 1921, Dr. Accounts Receivable.................... $\$ 2,328.00$
Cr. B. L. Crowe.................................................... $\$ 485.00$
Public Market Co............................................. 370.00
L. M. Brown.............-....................................... 700.00
Oscar Green........................................................... 150.00
Wm. Mobley..................................................... 238.00
O. Long \& Co.................................................. 75.00
Henry Weeks.-............................................... 100.00
A. C. Clancy.......................................................... 210.00
To close, in the general ledger, the individual accounts
of customers, and set up a representative account with
the total. The individual accounts are to be set up in the
subsidiary accounts receivable ledger.

When this journal entry has been posted, the personal accounts will disappear from the general ledger. The "Accounts Receivable Account" will take their place and will show the total amount due from customers.

Customers' Ledger. The next thing to do is to set up these same personal accounts for all customers in the customers' ledger. Each customer will be given a separate account with the old balance entered, just as it appeared before in the general ledger. In setting up these new accounts it is not necessary to make a journal entry, because it is not necessary that the subsidiary ledger be in balance. The accounts in the subsidiary ledger are statistical in nature. They are merely the details, which are summarized and represented in the general ledger by the balance of the Accounts Receivable or Customers' Ledger Account. In other words, the total amount in the Accounts Receivable Account of the general ledger will agree with the sum of the balances in the customers' accounts of the subsidiary ledger. The agreement is shown in Figure 2.

Eight Entries in Subsidiary
Ledger (Accounts Receivable)


Chart Showing Agreement between the Subsidiary Ledger and the General Ledger Figure 2. In the subsidiary ledger there is an account for each customer, while in the general ledger we have one account for all accounts receivable, to which is debited an amount equal to ALL the debit balances of the subsidiary ledger.

Use of Subsidiary Ledgers Affects Form of Journals. Now that we have explained the customers' ledger, we must know how to record business transactions so that they will not only be brought into the general ledger but also into the subsidiary ledgers. To understand this fully we shall trace certain transactions from the various books of original entry into the general and the subsidiary ledgers.

We can assume for purposes of illustration that during the first week in July we have the following transactions with customers.
TRANSACTIONS WITH CUSTOMERS WHO BUY ON ACCOUNT
July 1. Sold merchandise on account to Oscar Green ..... $\$ 135.00$
Received cash from L. M. Brown to apply on account ..... 500.00
Received cash from Henry Weeks to apply on account ..... 100.00
2. Sold merchandise on account to L. J. Getz ..... 975.00
Sold merchandise on account to Public Market Co ..... 85.00
Received cash from Public Market Company to apply on ac- count ..... 300.00
5. Sold Merchandise on account to Knight C. Coffee. ..... 250.00
Sold merchandise on account to Wilbur Lutes ..... 300.00
Sold merchandise on account to Oscar Green. ..... 265.00
Sold merchandise on account to Alra Wheeler ..... 141.21
Received cash from B. L. Crowe to apply on account ..... 485.00
6. Received cash from Oscar Green to apply on account ..... 500.00
Received cash from A. C. Clancy to apply on account ..... 210.00
Sold merchandise on account to Isaac Tabor ..... 420.15
7. Received cash from O. Long \& Company to apply on account ..... 75.00
Sold merchandise on account to Albert Orr \& Son ..... 90.00

When these transactions are entered in the books of original entry, all sales on account are entered in the sales journal, as shown in Figure 3, and all cash received from customers to apply on their accounts is entered on the left-hand side of the cash journal, as shown in Figure 4.

SALES JOURNAL

| Date |  | L.P. | ACCOUNT DEBITED | ADDRESS | TERMS | $\begin{array}{\|c\|} \hline \text { SALESS } \\ \text { No. } \end{array}$ | $\begin{aligned} & \hline \text { SALES } \\ & \text { CREDIT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1921 \\ & \text { July } \end{aligned}$ | 1 |  | Oscar Green | 109 E 31st St, Chicago Ill. |  | 22 | 13500 |
|  | 2 |  | L. J. Getz | 20 Wentworth Ave., New York | n/30 | 23 | 97500 |
|  | 2 |  | Public Market Co. | 2732 4th St., Chicago | $\mathrm{n} / 30$ | 24 | 8500 |
|  | 5 |  | Knight C. Coffee | 413 Indiana St., Boston, Mass. | n/10 | 25 | 25000 |
|  | 5 |  | Wilbur Lutes | 19 College St., Indianapolis, Ind. | n/30 | 26 | 30000 |
|  | 5 |  | Oscar Green | 109 North St., Chicago | n/30 | 27 | 26500 |
|  | 5 |  | Alra Wheeler | 3714 Washington Ave., Chicago, Ill. | n/30 | 28 | 14121 |
|  | 6 |  | Isaac Tabor | 927 Lincoln St., Chicago, Ill. | n/30 | 29 | 42015 |
|  | 7 |  | Albert Orr \& Son | 52 Hamline St., St. Paul, Minn. | n/30 | 31 | 9000 |
|  | 7 |  | Total Sales on Account | (Dr. Accounts Rec., Cr. Sales) |  |  | 2,661 36 |

The Sales Journal
Figure 3. This Sales Journal contains all sales to customers on account from July 1 to July 7. The cash received from customers is entered in the Cash Book, Figure 4.

CASH JOURNAL (Receipts Side)


The Cash Journal (Receipts Side)
Figure 4. You will note that all cash received from customers is recorded in a special column so that at the end of the period the total can be posted as a credit to the accounts receivable account. All other cash receipts which are entered in the general ledger credits column are posted separately to the general ledger.

Postings Made from Sales Journal and Cash Journal. The posting from the sales journal to the general ledger and to the subsidiary ledger can be summarized thus:

1. To the general ledgerDebit Accounts Receivable.\$2,661.36
Credit Sales. ..... \$2,661.36
2. To the subsidiary ledger (Accounts Receivable)Debit (to each customers' Account separately)
Oscar Green ..... $\$ 135.00$
L. J. Getz ..... 975.00
Public Market Co. ..... 85.00
Knight Co. Coffee ..... 250.00
Wilbur Lutes ..... 300.00
Oscar Green ..... 265.00
Alra Wheeler ..... 141.21
Isaac Tabor ..... 420.15
Albert Orr \& Son. ..... 90.00

The postings from the cash book (receipts side) to the general ledger and to the subsidiary ledger are made as follows:

1. To the general ledger
Debit Cash ..... $\$ 2,822.60$
Credit Accounts Receivable (total) ..... \$2,170.00
Credit to Each Account Separately:
Sales ..... 29.10
Purchase Returns ..... 10.15
Notes Payable ..... 500.00
Sales ..... 113.35
2. To the subsidiary ledger (Accounts Receivable)
Credit (to each customer's account separately)
L. M. Brown ..... $\$ 500.00$
Henry Weeks ..... 100.00
Public Market Co. ..... 300.00
B. L. Crowe ..... 485.00
Oscar Green ..... 500.00
A. C. Clancey ..... 210.00
O. Long \& Co. ..... 75.00

## General Rules for Postings from Sales and Cash Journals

1. From the sales journal post the total as a debit to the Accounts Receivable Account and the credit to the Sales Account. In addition, post each item separately as a debit to the personal accounts of the subsidiary ledger. The exact procedure is shown in Figure 5.

By posting one total debit to Accounts Receivable Account and numerous debits to the individual customers' accounts, we may seem to be violating the double entry principle that every debit should have a corresponding credit. This is not the case however. The customers' accounts constitute a subsidiary ledger, and are therefore not incorporated in the trial balance. What appears to be two debits with but one credit is in reality one debit and one credit to the general ledger, and one duplicated record in the subsidiary ledger.
2. From the cash journal (receipts side) post the total cash received as a debit to the Cash Account. Post the total cash received from customers as a credit to the Accounts Receivable Account. Post each of the items in the general ledger credits column as a credit to the proper account in the general ledger. In addition, post each item in the "Customers' Ledger Credits" column as a credit to the personal accounts of customers in the subsidiary ledger. Figure 6 is a graphic reproduction of the procedure.
(Continued on Page 9)



Ledger Accounts After Postings Have Been Made. When the sales journal and cash journal have been posted to the ledger accounts, as indicated, the accounts will appear as shown in Figure 7 (general ledger accounts) and in Figure 8 (customers' ledger accounts).

## GENERAL LEDGER ACCOUNTS

Uaby


Sales


Accounts Receivable


Notes Patable


Purchase Returns


General Ledger Accounts
Figure 7. Check up each of these postings. The amounts given in these accounts as balances represent the balances as they appeared on June 30, 1921.

CUSTOMERS' LEDGER ACCOUNTS
B. L. Crowe

| DATE | ITEMS | Fol. | $\checkmark$ | DEBITS | DAT |  | ITEMS | P01. | $\checkmark$ | CREDITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| la21  <br> June 30 | Balance |  |  | 485 OC. | 1921 | 5 | Cash | C |  | 485100 |

Public Market Co.

| 1921 June July | - | Balance <br> Mdse. Sale | S |  | 2 | Cash | $C$ | 300 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## L. M. Brown

| 1921 |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| June | 30 | Balance |  | $700\|00\|$ | July | 1 | Cash | C | $500 \mid 00$ |

Oscar Green


Wm. U. Mobley


## O. Long \& Company



## A. C. Clancy



## Henry Weezs


L. G. Getz

| DATB | ITEMS | Pol. | $\checkmark$ | DEBITS | DATE | ITEMS | Fol. | 1 | CRBDITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921  <br> July 2 | Mdse. Sale | S |  | 975 (00) | 1921 |  |  |  |  |

Knight C. Coffee


Wilbur Lutes


Alva Wheeler



Albert Orr \& Son

| July | 7 | Mdse. Sale | S |  | 90 | $00 \mid$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Customers' Ledger Accounts

Figure 8. These accounts show the balances as taken over from Figure 2 and the amounts posted from the sales journal of Figure 3 and the cash journal of Figure 4. Notice that four of the accounts are closed and double ruled, since the customers have paid their accounts.
Accounts Payable Ledger. What has been said concerning the development of a special ledger for customers is equally applicable to the development of a special ledger for creditors.

The creditors' accounts are removed from the general ledger in the same way as the customers' accounts, namely, by journal entry. A journal entry is made closing each of the creditors' accounts and setting up a representative account in the ledger to take its place, namely, Accounts Payable Account. To illustrate, let us assume that our general ledger contains the following creditors' accounts:
Northern Milling Company. ..... $\$ 100.00$
McKenzie Produce Company ..... 163.25
Grocery Supply Company ..... 274.62
Swift \& Company ..... 310.17

The following journal entry will close the personal accounts of creditors in the general ledger:

June 30, 1921, Debit Northern Milling Company.............................. $\$ 100.00$<br>McKenzie Produce Company............................. 163.25<br>Grocery Supply Company.................................... 274.62<br>Swift \& Company................................................ 310.17<br>Credit Accounts Payable............................ $\$ 848.04$

After this journal entry has been posted, the old personal accounts of the creditors in the general ledger will stand closed (double ruled) and the new representative or summary account will appear, with the total $\$ 848.04$ on the credit side.

New creditors' accounts should then be provided in the subsidiary creditors' ledger. Each account will be credited with the balance appearing in the list above. The sum of these credit balances in the subsidiary ledger will agree with the total appearing in the representative account, accounts payable, in the general ledger.

How to Record Transactions with Creditors. After all the creditors' accounts have been removed from the general ledger to the creditors' ledger, and a summary account, Accounts Payable or Purchase Ledger Account, has been set up in the general ledger to represent them, the transactions with creditors are recorded in a way similar to the transactions with customers. The books of original entry, in which transactions with creditors are recorded, are the purchase journal and the cash journal (disbursements side). All purchases on account are entered in the purchase journal, and all cash paid out to creditors is recorded in the cash journal on the disbursement side.

Assume that, during the first week of July, 1921, we have the following transactions with creditors.

## TRANSACTIONS WITH CREDITORS

July 1, 1921. Bought merchandise from Grocery Supply Co.; Terms, n/30.\$1,250.00
5, Paid cash to Swift \& Company to apply on account............. 200.00
5, Bought merchandise from Alpha Grocery Co.; Terms, n/30 780.75
6, Paid cash to Northern Milling Company in full of account 100.00
6, Paid cash to McKenzie Produce Company............................... 150.00
7, Bought merchandise from Swift \& Co.; Terms, $2 / 10-\mathrm{n} / 30$.. 910.00
7, Bought from Grocery Supply Co.; Terms, n/30..................... 405.15
7, Paid cash to Grocery Supply Company, to apply on account $1,000.00$
This list contains two kinds of transactions with creditors, purchases on account and cash payments to creditors. The purchases are entered in the purchase book of Figure 9 and the cash payments are entered in the cash journal of Figure 11.

Purchase Journal. With the purchases on account properly entered, the purchase journal will appear as shown in Figure 9.

PURCHASE JOURNAL


The Purchase Journal
Figure 9. These transactions with creditors involve purchases, and would therefore be entered in a purchase journal.
Postings are made from the purchase journals as indicated by the diagram in Figure 10.

Purchase Book


## Chapt Showing Posting of Purchase Journal

Figure 10. The total of the purchase journal is posted to the general ledger at the end of the period as a debit to the purchases account, and a credit to accounts payable account. In addition, each item is posted as a credit to the proper account in the creditor's ledger.

The Cash Journal (Disbursements Side). Figure 11 indicates how all cash paid to creditors is recorded in the cash journal on the disbursements side:

CASH JOURNAL (Disbursements)


The Cash Journal (Disbursements Side)
Figure 11. All cash payments to creditors are recorded together in a special column, headed "Creditors' Ledger Debits," in order that at the end of the period the total can be posted as shown in Figure 12. All payments for other purposes, as for a cash purchase, rent, etc., are kept in a separate column, so that they can be posted as separate items.
Posting of Cash Book. A study of the diagram shown in Figure 12 will show exactly how the posting of the cash book is done.


Chart Showing Posting of Cash Journal
Figure 12. Each item in the creditors' ledger debits column is posted as a debit to the proper creditors' account in the subsidiary ledger, and each item in the general ledger debits column is posted as a debit to the proper account in the general ledger. The total amount of cash paid to creditors, $\$ 1,450.00$, is posted as a debit to the accounts payable account, and the total amount of cash paid out, both to creditors and for other purposes, is posted as a credit to the cash account.

Ledger Accounts After Postings. When the purchase journal and cash journal have been posted, the general ledger accounts will appear as shown in Figure 13.

## GENERAL LEDGER

## Cash



## Purchases



Accounts Payable


Expense


## Delivery Equipment

| 1921 |  | Horse and wagon | C |  | 150 | 50 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## General Ledger Accounts

Figure 13. The other accounts in the general ledger, as sales, accounts receivable, notes payable, and purchase returns, which were given in Figure 7, are not affected by the postings from the purchase journal and the cash journal disbursements side. For this reason these accounts are not presented here; neither are the accounts in the customers' ledger shown.

Figure 14 shows how the creditors' accounts, in the creditors' ledger will appear.

## CREDITORS' LEDGER

Northern Milling Company


McKenzie Produce Company


Grocery Supply Company


Swift \& Company


Alpha Grocery Company

| 1921 |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | July | 5 | On account | P |  |

Creditors' Ledger Accounts
Figure 14. These creditors' accounts now show all the items after they have been posted from the purchase journal and the cash journal, disbursements side. You will also notice that the account for the Northern Milling Company is balanced and ruled, since their account is paid in full. The amounts shown as balances on June 30, were brought into the accounts when the subsidiary ledger was set up, as on page 12.
Miscellaneous Transactions Entered in General Journal. We may have some transactions with customers and creditors, which, because of their nature, would not be entered in the sales journal, purchase journal, or cash journal. Such transactions are therefore entered in the general journal. Suppose, for example, that Wm. U. Mobley, one of our customers, gives us on July 8 a note for $\$ 200.00$ to apply on his account. This transaction would be entered in the general journal thus:

July 8. Notes Receivable. $\$ 200.00$
Accounts Receivable
$\$ 200.00$
Received Wm. U. Mobley's 30 day note to apply on account.
When this entry is posted care must be taken to post the credit item twice, once to the credit side of the summary account, Accounts Receivable, in the general ledger, and also to the credit side of his personal account in the customers' ledger.

For further illustration, assume that we return some merchandise that was of inferior quality to the Grocery Supply Company, and they allow us $\$ 25.00$ credit. This transaction involves a purchase allowance, and will be entered in the general journal thus:

> July 9. Accounts Payable.......................................................................................................... ${ }^{\text {Purchase Allowances........ }}$ Credit received for inferior goods.

When this entry is posted the debit item must be posted to the general ledger and also to the subsidiary ledger, while one credit is made to the Purchase Allowances Account in the general ledger.

How Three Ledgers Are Related. Now instead of having only one ledger, we have three separate ledgers, namely, the general ledger, customers' ledger, and creditors' ledger. The general ledger is complete in itself. It contains all the general or impersonal accounts that make up the trial balance. Two of these accounts, Accounts Receivable and Accounts Payable, are summary or representative accounts. In other words, these two accounts represent or summarize in detail the personal accounts of customers and creditors which have been taken out of the general ledger and set up in the two subsidiary ledgers.

The subsidiary ledger, accounts receivable ledger, is a detail record of all customers' accounts. It is not an essential part of the general ledger. - It is merely statistical. It gives the facts supporting the total in the Accounts Receivable Account of the general ledger. When the trial balance of the general ledger is taken the detailed customers' accounts in the accounts receivable ledger are not included, since they are represented in the general ledger by the total in the Accounts Receivable Account. This account is the connecting link between the accounts receivable ledger and the general ledger, because the total in the Accounts Receivable Account must agree with the sum of the balances in the customers' accounts in the subsidiary accounts receivable ledger.

The accounts payable ledger stands in a similar subsidiary position to the general ledger. The balance of the Accounts Payable Account will agree with the sum of the balances of the creditors' accounts in the subsidiary ledger. Likewise the creditors' accounts in the subsidiary ledger are not included in the trial balance of the general ledger. They are represented by the total in the Accounts Payable of the general ledger.

The general ledger furnishes all information for the trial balance, and consequently the accounts shown on the financial statements are all contained in the general ledger. Therefore, the accounts shown in the subsidiary ledgers appear in detail neither in the general ledger trial balance nor on the financial statements; they simply represent a detailed analysis of such summary accounts as Accounts Receivable and Accounts Payable.

The relation of the three ledgers to the books of original entry is shown in the diagram of Figure 15.


Chart Showing Relation of Four Books of Original Entry to the Three Ledgerts

Figure 15. The first line of this chart is broken up into four parts, representing the four books of original entry. Most of the transactions of a business are entered in these books. Below these four books you note the general ledger and the two subsidiary ledgers. Follow the arrowed lines and you will see how the four books of original entry are posted. From three of them totals are posted to the general ledger, namely, the cash journal, sales journal, and purchase journal, as indicated by the arrows marked " T "; all the other arrows marked "S" represent the posting of detailed items. You can use this chart to advantage in reviewing the important principles of assignment 9.

Meaning of the Term "Controlling Accounts." The summary accounts -Accounts Receivable and Accounts Payable-often referred to as sales ledger accounts and purchase ledger accounts-which are set up in the general ledger to represent the personal accounts, are designated in accounting by the term "controlling accounts," and they will be so referred to in the subsequent assignments of your course.

Such accounts are called controlling accounts because of the independent check, or proof, they give of the correctness of the subsidiary ledgers. The balance of the Accounts Receivable Account, for example, should be, at the end of any accounting period, exactly the same amount as the total of the balances in the customers' ledger.

Purpose of Controlling Accounts. Controlling accounts are a means of localizing errors, because they represent in every case a total which can be proved by other records. If a controlling account "proves," then we do not need to check further the accounts in that subsidiary ledger. The search for errors is thus limited to that portion of the accounting record for which there is no sectional test. This means a tremendous saving of time when a business has hundreds of accounts with customers and numerous accounts with creditors.

This so-called "internal check" is one of the best means of detecting errors. This system simply involves the checking of one person's work
against the work of another person, which is made possible by the use of controlling accounts. If A, a ledger clerk, takes care of our customers' ledger, posting the detail items from the various books of original entry to the customers' personal accounts, and nothing else, his work can be checked with that of B, who takes care of the general ledger, and consequently makes the posting to the controlling accounts. Should either A or B make an error in connection with the entries made in the controlling account and customers' ledger accounts, the debit balance in the controlling account would not agree with the sum of the balances of all customers' accounts in the customers' ledger. The error usually is found to have been made by the clerk who posts the detailed items. In this way his work is said to be controlled by the summary, or "controlling" account, hence its name.

Advantages of Controlling Accounts Summarized. The advantages of controlling accounts may then be summed up as follows:

1. Controlling accounts are a great aid in finding errors in a trial balance.
2. They reduce the work of preparing a trial balance by shortening the list of accounts.
3. If the general ledger is in balance, financial statements can be prepared without reference to the personal accounts.
4. Customers' statements of accounts can be made out and sent to customers even when the general ledger is out of balance, provided the controlling account, Accounts Receivable, total agrees with the sum of the customers' balances.
5. Controlling Accounts make possible a greater division of labor. One clerk may be placed in charge of the general ledger, another in charge of the customers' ledger, and a third in charge of the creditors' ledger. Thus time can be saved and a greater amount of accuracy secured.
6. The work of subordinates is more accurate and conscientious, since they know it must agree with the "control" figure.
Use of Other Controlling Accounts. In the illustrative work of this assignment only two controlling accounts have been mentioned, Accounts Receivable and Accounts Payable.

When, however, the volume and the nature of the business demand it, other controlling accounts may be used. For example, you might have a Raw Materials Account for various kinds of materials purchased and used in the factory, Notes Receivable Account for numerous notes received from customers, and Notes Payable Account for the many notes given to creditors. The Capital Stock Account of a corporation controls a stock ledger which contains an account for each of the holders of capital stock. A controlling account may also be set up for investments whenever a concern trades heavily in investments.

More will be said concerning these special controlling accounts in subsequent assignments.

## THE ESSENTIAL POINTS IN THIS ASSIGNMENT

The one big outstanding principle of this assignment is the subdivision of the general ledger and the use of subsidiary ledgers for purposes of more accurate control.

Customers' accounts are taken out of the general ledger and set up in a separate ledger. Creditors' accounts also are set apart in another subsidiary ledger.

Both of these subsidiary ledgers are controlled by representative or controlling accounts in the general ledger. This means not only that the totals of the controlling accounts must agree with the sum of the accounts in the subsidiary ledger, but also that an accurate control or check-up is possible on the various persons who are in charge of the different ledgers. Errors can be more easily detected. The accounting system is thus made more accurate, which is especially desirable in large business organizations where much of the recording must be done by persons with a rather limited accounting knowledge.

You will find this principle of subdividing the ledger is very extensively applied in accounting practice. If you understand the principle you will have no difficulty in analyzing some systems that would otherwise seem complicated and full of details.

In the problems that follow, you are asked to apply the principle of controlling accounts to situations taken from the field of actual business practice. Send in solutions for all these problems.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 9

1. The King Manufacturing Company uses controlling accounts and subsidiary ledgers for customers and creditors. On July 2, 1921, it makes a sale of $\$ 515.75$ to the Adams Supply Company, terms $2 / 10 \mathrm{n} / 30$.
(a) How is this sale recorded on the books of original entry by the King Manufacturing Company? How is the item posted?
(b) On July 18 the Adams Supply Company receives a credit memo, which allows them credit for $\$ 76.00$, on account of defective goods. How is this transaction entered on the books of the King Manufacturing Company?
(c) On August 27 the Adams Supply Company pays the balance of this bill. What entry will the King Manufacturing Company make on its books?
2. The following accounts have been taken at random from the trial balance of the Carroll Manufacturing Company. You should understand that this is only a partial list. After examining these accounts you are asked to do three things:
(a) State which of the accounts listed could be controlled by the controlling account, "Accounts Receivable." What is the balance that will appear in this controlling account?
(b) State which of the accounts could be controlled by the controlling account, "Accounts Payable." What is the balance that would appear in the controlling account?
(c) What other accounts in this list may be used as controlling accounts?

| Accounts | Debit | Credit |
| :---: | :---: | :---: |
| H. I. Weaver | 500.00 |  |
| H. J. Franklin. | 400.00 |  |
| F. E. Bengert | \$ | 2,000.00 |
| Raw materials on Hand Dec. 31, 1920. | 8,750.00 |  |
| Raw materials Purchased during year........ | 40,200.00 |  |
| H. J. Thompson. |  | 700.00 |
| Selling Expenses | 5,000.00 |  |
| L. K. White. | 800.00 |  |
| Notes Receivable | 2,500.00 |  |
| Notes Payable |  | 1,000.00 |
| Cost of Goods Sold | 75,000.00 |  |
| Capital Stock |  | 60,000.00 |
| A. B. Lewis. | 1,000.00 |  |
| H. A. Williams | 400.00 |  |
| D. E. Reid. |  | 800.00 |
| D. C. Washington. |  | 1,000.00 |

3. Enter the following transactions in the cash journal, sales journal, purchase journal, and general journal. Use the general journal only for those transactions that cannot be entered in the special journals. Foot and rule the various books of original entry except the journal. Post the details to the subsidiary ledgers, customers' ledger and creditors' ledger. Post the totals and the sundry items to the general ledger. After you have posted all of the items in the general and subsidiary ledgers prepare a trial balance of the general ledger and make a list of the balances in each of the subsidiary ledgers; prove the net balance of the subsidiary ledgers against the respective controlling accounts.

## TRANSACTIONS

June 1, 1921, A. H. Stone began business with the following assets: Cash, $\$ 10,000$; merchandise, $\$ 20,000$; Furniture and Fixtures, $\$ 2,000$.
2 Sold merchandise to F. R. Jamison on account, $\$ 400.00$; to Angis McLean on account, $\$ 360.00$; to James Axton on account, $\$ 342.18$.
3 Bought merchandise on account from Lane \& Company, $\$ 240.08$; from James Cobb, $\$ 748.19$; from McKinney Brothers, $\$ 800.00$.
4 F. R. Jamison returned $\$ 57.00$ worth of goods and paid $\$ 100.00$ on account. Mr. Stone paid out $\$ 200.00$ for month's rent of store building.
6 Paid clerks' salaries, $\$ 240.00$. Received $\$ 150.00$ on account from James Axton and $\$ 160.00$ from Angis McLean.
8 Returned $\$ 98.00$ worth of merchandise to James Cobb as unsatisfactory. Gave our note to McKinney Brothers for $\$ 500.00$ and cash for the balance of the bill of June 3 .
10 Received from James Axton, $\$ 50.00$ cash.
11 Received a promissory note from Angis McLean on account, \$200.00. Paid James Cobb on account, \$650.19.
13 Gave note to Lane \& Company for $\$ 200.00$, to apply on account. Collected $\$ 50.00$ from James Axton to apply on account.
15 Borrowed from First National Bank, $\$ 2,000.00$ on our note.
16 Bought an office desk, $\$ 74.00$ cash.
17 Collected $\$ 200.00$ from F. R. Jamison.
22 Paid our note at the bank. (Disregard interest cost.)
24 Sold merchandise to J. C. Block, on account, $\$ 375.00$. Purchased merchandise for $\$ 425.50$ from Clinton Curtis on account.
30 Cash sales for month, $\$ 400.00$.
30 The inventory of merchandise amounted to $\$ 21,075.64$.
Send in to the University the following:
(a) Cash journal, sales journal, purchase journal, general journal.
(b) Ledger accounts with items posted from books of original entry.
(c) Trial balance before closing.

It is not necessary to prepare and send in the balance sheet and the profit and loss statement, unless you so desire. These two statements will be included in the practical solution which will be sent to you along with your written work.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

Assignment 10<br>COLUMNIZATION

TO get before the business executive the exact information necessary to run a business-to buy ahead, extend credits, take on additional lines, expand branches, etc. -means that the business facts that accounting must gather and present should be accurately recorded.
The balance sheet, the profit and loss statement, or the special report must bring this information before the executive so that he can follow his business with unerring fingers and plan and figure ahead.

E. F. DAHM

Associate Educational Director, LaSalle Extension University

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation--Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## COLUMNIZATION

## USE OF SPECIAL COLUMNS IN BOOKS OF ORIGINAL ENTRY

Principle of Columnization. Thus far in our course we have used the simplest forms for the various books of original entry. The journal in Assignment 5, the cash book in Assignment 7, and the sales and purchase books in Assignment 8 were presented with as few columns as possible. When a business grows large enough, these simple books can be made more useful by increasing the number of columns. In Assignment 9 we applied for the first time what may be called the "principle of columnization," which simply means the use of additional columns in which like items are set apart and summarized so that totals can be posted, often with a valuable saving of time.

For example, in the cash book of Assignment 9 two special columns were added, one on the receipts side for cash received from customers, and the other on the disbursements side for cash paid to creditors. The totals of these columns were then posted to the controlling accounts.

In the present assignment, therefore, you will find that you are already somewhat familiar with the principle and the advantages of adding special columns in books of original entry. Apply this same principle as you proceed with this assignment. You will thus come to learn more easily and quickly how the pages of the journal, cash book, sales book, and purchase book can be ruled so as to provide the additional columns necessary to efficiently record the large volume of detail found in large businesses.

Designing the Simple Journal. Accountants are frequently called upon to design record forms for small concerns, where usually only one book of original entry-the journal-is used, and where all the accounting work is done by one person. The simple journal with its two columns, as shown in Figure 1, would be adequate as long as the number of transactions remains small.

When, however, this number grows larger, then it is desirable to provide additional columns in the journal, so that the one bookkeeper can accomplish more work in the same amount of time. Figure 1 shows the two columns.

How Time Can Be Saved. The most logical place to save time is where the transactions are first recorded, that is, in the journal. In other words, provide special columns so that like items can be classified and grouped at the time the entries are made. After we have added the special columns, we have a "columnar journal."

The Columnar Journal. This columnar journal does not in any way affect the twofold entry that is made in the simple journal. You still have the debit and credit elements for each transaction, only instead of placing all the debits in one column and all the credits in another, you classify the debits in several columns, and the credits in several columns. Each transaction as you see in Figure 2 is analyzed into its debit and credit elements just as was the case in the simple journal.

JOURNAL

| DATE |  | L. F. | EXPLANATION | Debits | Credi |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1922 \\ & \text { May } \end{aligned}$ | 7 |  | ```Cash Sales Total for day Purchases Cash Merchandise from A. B. C. Co. Rent Cash Rent of store for month Cash Sales Total for day John Carmichael Accounts Receivable Sales Merchandise on account Cash Sales Total for day Expense Cash Paid Gas Bill Purchases Cash Merchandise from Nelson Bros. Cash Interest Earned Interest on Notes Receivable``` | 17500 | 175 |  |
|  | 7 |  |  | 21500 | 215 |  |
|  | 8 |  |  | 5250 | 52 | 50 |
|  | 8 |  |  | 31750 | 317 | 50 |
|  | 8 |  |  | 3900 | 39 | 00 |
|  | 8 |  |  | 13510 | 135 |  |
|  | 9 |  |  | 1375 | 13 | 75 |
|  | 10 |  |  | 20000 | 200 | 00 |
|  | 10 |  |  |  | 15 |  |

The Simple Journal
Figure 1. This simple journal has one column for debits and another for credits. When you post these entries to the ledger, you will have to make two postings, debit and credit, for each transaction; eighteen postings for nine transactions. Look over the explanation column and you will note that cash is debited four times and credited four times. Sales is also credited four times. If all the cash debits could be placed together in one column, all the cash credits in another, and the sales credits in still another, and so on, then these separate postings could be avoided. Instead, totals could be posted at the end of the period, and much time could be saved as explained in the discussion.
Posting Totals from Columnar Journal. The Purchases Account can now be debited with the total amount of purchases; the Cash Account will receive the total debits and the total credits instead of several detailed amounts; and the Sales Account will receive the total amount of sales. The amounts in the general ledger columns would of course be posted in the regular way, item by item, to the general ledger.

When Postings Are Made. The totals may be posted daily or weekly, or just as soon as a page is filled up the special column may be footed and the totals posted, instead of carrying them forward to a new page. The "general ledger" columns will not be totaled nor carried forward to a new
page, because the items entered in these columns are to be posted to several different accounts, and the total will not represent anything.

Multicolumnar Journal. In some small businesses, where numerous transactions of a similar type occur, it is desirable to use the multicolumnar journal reproduced in Figure 3, which contains still more columns than Figure 2, but in a slightly different arrangement. The number of columns, of course, will depend upon the number of types of transactions which recur frequently.

COLUMNAR JOURNAL


The Columnar Journal
Figure 2. This columnar journal contains the same transactions as Figure 1. The difference is that we have used additional columns; one for cash debits, another for cash credits, one for purchases, another for sales, and two columns for miscellaneous items, one for the debits, another for the credits. These columns make it possible to segregate the debits and credits so that time will be saved in posting and the chances for error will be less.


Assignment 10, Page 4

Number of Columns to Use. The number of columns depends upon the needs of your particular business. This general principle or rule should govern the choice of columns, namely: Economy may be secured by the use of special columns ONLY when a given type of entry is repeated several times in the same period. Clearly, the columns used in a columnar journal will vary with different businesses; you will, therefore, understand that a journal as illustrated in Figure 3 by no means fits every business. It will also be well to bear in mind that the columnar journal has certain limitations.

Limitations of Multicolumnar Journal. The number of columns is naturally limited by the size of the page. There are in use columnar journals with pages as wide as 18 inches. The page however, cannot extend indefinitely to the right or left, nor can there be inserted an indefinite number of short pages. Too many columns would mean waste of space and counteract the economy of total posting. The more columns you have the more difficult it is to enter amounts in the correct column and line, and hence, the greater is the chance of error.

The usefulness of the columnar journal is limited to such businesses in which there is not yet sufficient accounting to require more than one clerk. The multicolumnar book makes it unnecessary to split up the accounting record, but this is true only up to a certain point. As soon as the business grows large enough, subdivision must come. The multicolumnar journal, is, therefore, but a temporary economy, and one, very likely, fitted to none but the small business.

Special Journals Outgrowth of Columnar Journal. This columnar journal, with its numerous columns, one for Cash, another for Accounts Receivable, another for Accounts Payable, etc., may prove inadequate for a growing business, but it is suggestive of what can be done in the development of special journals when the volume of business demands it. The cash book for example is, in fact, nothing more than the cash columndebit and credit-taken out of the columnar journal and set off in a separate book. The sales book is merely the sales column taken out, and the purchase book is the purchase column set apart. In other words, the principle of columnization, developed in the columnar journal, has shown the way for the development of special books of original entry. Instead of entering transactions in separate columns of one book, it is the most modern practice now, especially among the larger business concerns, to enter them in separate books, as explained in Assignments 7 and 8.

Additional Columnization Required. There are many businesses that outgrow even the simple cash book, sales book, and purchase book. Under such conditions, the special journals are enlarged by adding special columns, just as the journal itself was expanded. The principle of columnization is thus extended from the journal to the special journals. For example, the following conditions may exist.

1. Your customers' accounts may run up into the thousands, and must therefore be classified into three, four, or more, subsidiary ledgers, with an equal number of controlling accounts so that the work of keeping these ledgers can be distributed among several clerks. In order to obtain the totals for the several controlling accounts, additional columns are introduced in the sales book, purchase book, and cash book.
2. Further, suppose that the business in which you are employed has three separate departments selling merchandise. The sales manager or proprietor will want to know the total sales of each department for purposes of comparison by departments and
one period with another. In order to determine the amount of sales for each department, it is advisable to have separate columns in the sales book for departments. Thus, at the end of the period, the total sales for each can be easily determined by adding up the items in that column.
3. Assume that each department buys its own merchandise. The buyers of the several departments are responsible to the general manager or the purchasing agent. As a result, he will want a complete record of the purchases for each department for the purpose of comparison. This can usually be easily obtained by providing a separate column for each in the purchase book.
4. You may allow customers a cash discount for prompt payment, say 2 per cent in 10 days; you will then find it advantageous to use special columns in the cash book for these discounts., On the "Receipts" side is provided a special column headed "Sales Discounts Debit" and on the "Disbursements" side there is one headed "Purchase Discounts Credit." Thus, the total discounts taken and allowed for any period can be easily determined and compared with discounts for previous periods. The sales manager and the purchasing agent must have this information, so that they can determine intelligently future policies of taking and allowing discounts. The discount columns of the cash book will also save time in posting. The totals are posted instead of each item separately.
5. If cash sales and cash purchases are made daily it would be advisable to provide a special column for cash sales on the debit side of the cash book, and another column on the credit side for all cash purchases. Thus the total trading on credit can be frequently compared with the total cash business. Moreover, time can be saved in posting totals from these columns, and ledger space is also saved by having only totals in the accounts.
6. When a business has numerous expense items, time can be saved in posting by using one or more special columns for these expenses in the cash book, disbursements side. At the end of the month, or week, whenever the books are closed, the total can be posted to the Expense Account.
7. Some concerns maintain checking accounts with more than one bank. In such cases, a separate column can be set up in the cash book for each bank. In this way a more careful check can be maintained on the bank transactions.

Basic Principle of Columnization. We might continue to cite still other business conditions that would require columnization. Those given, however, are sufficient to illustrate the basic principle of columnization, and its application to specific conditions. It is a principle that can be applied extensively in accounting practice, because it serves two very important purposes:

1. To provide quickly necessary information for the proprietor or department managers, to be used in a more intelligent control of the business.
2. To save time by the posting of totals instead of numerous detail items.
Designing Special Journals. The first thing to do, therefore, in building up accounting records is to consider conditions like those we have mentioned above. See first of all what is needed. Since every business has its own needs and peculiar conditions, the accountant must first study the conditions as they actually exist. Then he can design his books to meet those conditions effectively.

Additional Columns in Sales Book. For purpose of illustration take the situation described above, under 1 and 2 on page 5 . Customers' accounts are to be classified alphabetically, and there are three selling departments. A sales book designed to meet the requirements of such a business would appear thus:
COLUMNAR SALES BOOK


The total of eacn debit column is posted to the proper controlling account. The debit totals can be summarized, likewise the credit totals, so that the equality of debits and credits in this book may be tested before the totals are posted. The names of the controlling accounts and of the departmental sales accounts are indicated in the column headings. Posting to the individual accounts in the four subsidiary ledgers is the same as when only one subsidiary ledger is used.

Purchase Book with Department Columns. The design of the purchase book is usually simpler than that of the sales book. Provision must be made for the several departments, if such be included in the plan of the business, but it is exceptional to find conditions requiring several separate creditors' ledgers and separate controlling accounts. In most enterprises there are fewer creditors than customers, because commodities are bought in large quantities and then distributed in smaller parcels.

In the purchase book illustrated in Figure 5, there is provision for only one Accounts Payable Controlling Account, but additional columns are shown for the three departments, as in the sales book.

COLUMNAR PURCHASE BOOK


The Columnar Purchase Book
Figure 5. This columnar purchase book has three debit columns, one for each department. The items are distributed to these columns, according to the kinds of goods purchased. If Dept. A. makes the purchase, the item is entered in column Dept. A., etc. One column is provided for the total credit to Accounts Payable Account. At the end of the period each of the debit totals is posted to the proper departmental Purchase Account, and the entire amount is credited to Accounts Payable. During the month each item is posted separately to the personal account in the creditors' ledger.
"Due Date" Column. One column in this purchase book is to be noted especially, for it has not appeared before, and it serves an important administrative function. We refer to the column headed "Due Date." In this column should be entered the latest date upon which payment may be made, and still secure the cash discount. The due date is determined by considering the date shown in the first column, and the facts recorded in the "Terms" column. Because of this use of the facts, the date shown in
the first column should be the date of the invoice rather than the date the entry is made. The date of entry, if recorded at all, will be shown in a separate column.

By thus recording the due date at the time of entry, it is possible for the proprietor or other person in charge to survey the purchase book quickly, and note those invoices which must be paid at once in order to take advantage of the cash discount allowed.

Columnar Cash Book. The simple cash book illustrated in Assignment 9 had only one column for Accounts Receivable, since the customers' accounts were few in number and could, therefore, be kept in one subsidiary ledger, which was controlled by one summary account in the general ledger.

COLUMNAR CASH BOOK (Receipts Side)


Columnar Cash Book
Figure 6. Cash that is received from customers is recorded in one of the four credit columns. If the customer's name begins with C, for example, the amount is placed in the column headed A-D; if the name begins with N , the amount is placed in the column headed L-R, etc. All cash from other sources is recorded in the General Ledger Credits column.
This simple cash book, however, can take on additional columns, whenever the business expands and customers become more numerous. Assume, for purpose of illustration, that you are asked to design a cash book which will meet the needs of the following cases:

Case 1. Customers' accounts are too numerous for one ledger. They are distributed alphabetically into four subsidiary ledgers, with four separate controlling accounts. Your cash book may then be set up in the form as shown in Figure 6.

The credits to the four controlling accounts for cash received from customers will be posted from the totals of the four special columns headed "A-D," "E-K," "L-R," and "S-Z;" the credits to the personal accounts in each of the four subsidiary ledgers will be posted from each of these columns, item by item, in the same manner as if there were but one column.

COLUMNAR CASH BOOK (Receipts)


Columnar Cash Book
Figure 7. This cash book is expanded still further than Figure 6. Look first at the receipts side. All cash sales are entered in the Sales Column, and extended in the Net Cash Column. Whenever a customer pays on account and is allowed a discount, the full amount of his bill is entered in the Accounts Receivable Column, the discount allowed is entered in the Sales Discount Column, and the net cash received in the Net Cash Column. Money received from other sources is recorded in the General Ledger

COLUMNAR CASH BOOK (Disbursements)


Column and extended to the Net Cash Column. Turn to the Disbursements side of the cash book. All expenses are entered in the Expense Column. When we pay a creditor, and take a discount, we enter the full amount of our bill in the Accounts Payable Account, the discount in the Purchase Discount column, and the net cash paid out in the Net Cash Column. Money paid out for other purposes, such as the purchase of a desk and chairs, is entered in the General Ledger Column. The net cash paid out for each transaction is entered in the Net.Cash Column.

Case 2. All the customers' accounts are kept in one subsidiary ledger. The business makes a practice of allowing cash discounts to customers for prompt payment. It also takes advantage of discounts allowed by creditors. The proprietor desires to know the total discount taken and allowed. He also wishes to compare cash sales with the total sales on account. Provision should also be made to post the expense items in total. The cash book which you might design to fit such a case would have special columns for the discounts, one column for cash sales on the receipts side and a special column for expense on the disbursements side, as shown in Figure 7.

Ruling and Balancing Columnar Cash Book. At the end of the period the cash book is closed and balanced. Each column is totaled, and the balance is determined in the same way as the balance of a Cash Account. In other words, the balance on hand at the beginning of the period, plus the total cash received during the period, minus the cash paid out, will be the balance of cash on hand at the end of the period. This balance should agree with the actual cash on hand and in the bank.

Method of Posting Columnar Cash Book. This cash book is posted in the same way as the cash book of Assignment 9. The debits and credits are indicated at the bottom of the cash book on both sides.

## CASH RECEIPTS SIDE

## 1. To the General Ledger

The items posted to the general ledger are:
Total cash receipts debited to Cash Account.................... $\$ 2,642.63$
Total sales discounts debited to Sales Discount Account 26.24
Total credit to Accounts Receivable Account.............
\$1,527.00
Total credited to Sales Account.
927.27

Individual credits from general ledger Credits Column:
Interest earned.
Notes receivable
200.00
2. To the Subsidiary Ledger (Customers)

Each item in the "Accounts Receivable" column is credited to the proper personal account in the customers' ledger.

Credits:

| Charles Smith | 100.00 |
| :---: | :---: |
| Edward Jones. | 60.00 |
| James Evans. | 115.00 |
| Western Manufacturing Co. | 152.00 |
| Carson Bros. | 100.00 |
| Ross \& Compa | 1,000.00 |

## CASH DISBURSEMENTS SIDE

## 1. To the General Ledger

Total debited to Accounts Payable Account................ $\$ 3,444.31$
Total debited to Expense Account.................................. 257.00
Separate item from general ledger Debits Column to
Furniture \& Fixture Account................................ 87.50
$\begin{array}{ll}\text { Total credited to Cash Account............................................................. } & \$ 3,730.83 \\ \text { Total credited to Purchase Discounts Account } & 57.98\end{array}$
Total credited to Purchase Discounts Account.... 57.98
Assignment 10, Page 12
2. To the Subsidiary Ledger (Creditors)

Each item in the Accounts Payable Column is debited to the proper personal account in the creditors' ledger.

## Debits:



Advantages of Special Columns in Cash Book. First, of all, much time is saved in the posting of totals from the special columns of the cash book, for sales discounts, purchase discounts, cash sales, and expenses. This is obvious from the numerous postings of totals explained above.

Another important advantage is that these columns serve to collect information that is important and essential to the management in determining future policies of a business. The officers in charge of a business may want to know the amount of discounts allowed to customers or the amount of discounts taken with creditors up to a certain date. Since the details have been properly grouped in special columns, it is an easy matter to determine the totals whenever this information is desired. The same is true when the total amount of cash sales is desired, or when the amount of expenses is requested. Business men always favor accounting systems that will produce accurate figures quickly. Such figures are made available by the use of additional columns in the cash book and other books of original entry, as illustrated in this assignment. The principle of columnization is, therefore, of great importance in accounting practice, not only because it saves time in keeping accurate records, but because it meets the needs of business, and supplies those in control with information that may be required any time during the accounting period.

Other Methods of Handling Cash Discounts. Some objection has been raised to handling the sales and purchase discounts thru the cash book on the theory that since they do not represent actual cash received and cash disbursed, they should not be entered in the cash book, which should contain only cash receipts and disbursements. Some argue that these discounts should be entered in the general journal.

Journal Entries for Discounts. For example, when Charles Smith pays his bill of $\$ 100.00$ on June 6, he is allowed $\$ 2.00$ discount. The net cash received is $\$ 98.00$. The $\$ 98.00$ would be entered in the cash book left side, in the Accounts Receivable Account column, and posted in the total along with the other items to the Controlling Account and also as a credit to Charles Smith's account in the customers' ledger. As his account now stands, however, Smith still owes us $\$ 2.00$, for his account has a debit of $\$ 100.00$ and a credit of $\$ 98.00$. A journal entry must then be made to show the discount of $\$ 2.00$.

$$
\begin{aligned}
& \text { June 6-Sales Discounts............................................. } \$ 2.00 \\
& \text { Accounts Receivable (Controlling).. } \$ 2.00 \\
& \text { Charles Smith (Subsidiary) }
\end{aligned}
$$

Obviously, much time would be consumed in making many such entries for discounts. Furthermore, the transaction is split up, part of it being
in the cash book and part in the journal. As a result, it is inconvenient, and practically impossible to compare the cash amount received from each customer and recorded in the cash book with the discount recorded in the journal. This disadvantage is eliminated by using special columns in the cash book.

Discounts Recorded as Receipts and Disbursements. Another way, used by some accountants, is to enter on the "Receipts" side of the book the full amount of the bill, $\$ 100.00$, as if that amount were actually received; then enter the $\$ 2.00$ discount on the "Disbursements" side as if $\$ 2.00$ had been paid back in cash to Smith. The effect of these two entries when posted would be to bring a debit to cash of $\$ 100.00$ from the cash receipts and a credit to Smith of $\$ 100.00$; and to bring a debit to Sales Discount of $\$ 2.00$ and a credit to Cash of $\$ 2.00$ from the cash disbursements. The net result will be correct.

But this causes the cash book to express $\$ 100.00$ as received, when, as a matter of fact Smith sent only $\$ 98.00$, which is a misstatement of fact. No accountant who takes pride in his work wishes his books even to appear to contain untrue statements. So it is natural to find the modern practice leaning toward the use of special columns in the cash book for these cash discounts.

## MAIN POINTS OF ASSIGNMENT 10

Before you attempt to solve the problems of this assignment be sure that you understand thoroly the following main points which have been brought out in the discussion.

Columnization means the use of additional columns in books of original entry.

Columns may be added to the simple journal when a small business begins to grow. In this way totals are posted instead of numerous separate items, and time is saved.

Out of the columnar journal special journals are developed-such as the cash, sales, and purchase journals.

As the nature and size of a business develops, these special journals are expanded further by adding still other columns; for example, columns for departments, for various subsidiary ledgers, and for cash discounts.

As you take up later assignments you will find that this principle of columnization is applied quite extensively in accounting practice. It is of great importance, and for this reason should be thoroly mastered.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 10

The following problems are submitted to you for careful study and solution. Problem 2 is optional and all other problems are to be worked out and sent in. Use ruled paper in setting up the solutions. Give special attention to the forms required. The neatness and accuracy of your paper will be considered by your instructor in grading your work.

1. Mr. Williams owns a retail grocery store. He buys most of his groceries on thirty days' time, taking advantage of discounts. He sells on time, to customers, and has adopted the policy of allowing a $2 \%$ discount if they settle their bills within 10 days. He carries, on an average, 150 customers' accounts. His cash sales amount to one-third of his total sales. He deposits his cash in the bank daily, and pays all his bills by check.

Prepare and send in to the University forms for the following books that would be suitable in Mr. Williams' business:
(a) Cash Book
(b) Purchase Book
(c) Sales Book
2. The West Side Trading Company operates a men's retail store with five selling departments. At the close of each month, the head salesman wishes to know the sales and purchases, by departments. Accounts with customers are divided between two clerks, and two controlling accounts are used.

Construct and send in a purchase book and a sales book that would meet the needs of this business.
3. The bookkeeper for the Northern Manufacturing Company has handled all sales and purchase discounts thru the general journal.
(a) What criticism have you to offer on his method?
(b) The office manager suggested to the bookkeeper to handle sales discounts thru the cash book, by crediting the customers for the full amount of the bill on the "Receipts" side of the cash book, and entering the discount on the "Disbursement" side. Was this good advice? State your reasons.
4. Enter the following transactions in a multicolumnar journal similar to the form shown on p. 4 with any variations that seem necessary.
July 1, 1921, A B. Brown began a small wholesale business with a capital of $\$ 1,000.00$ in the bank, and $\$ 2,000.00$ merchandise inventory.
8. Sold A. J. Robinson, on account, $\$ 500.00$ worth of merchandise.
14. Sold merchandise for cash, $\$ 105.00$.
19. Purchased from James Hunter, on account, merchandise for $\$ 800.00$.
19. Deposited in the bank all cash on hand.
25. Received check from A. J. Robinson for $\$ 300.00$, and a thirty days' promissory note for the balance due.
25. Deposited cash on hand in the bank.
29. Borrowed $\$ 1,500.00$ from the bank on a ninety days' promissory note.
30. Paid James Hunter in full of account.

After you have made the entries, close the journal showing how the journal should be posted-both totals and separate items.
5. Mr. Brown, the proprietor, says that he doesn't need a Cash Account in the ledger. What comment have you to offer on this point?

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

Assignment 11
ACCOUNTING PROCEDURE FOR PROMISSORY NOTES

SURELY a man has come to himself only when he has found the best that is in him, and has satisfied his heart with the highest achievement he is fit for. It is only then that he knows of what he is capable and what his heart demands.

## WOODROW WILSON

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the coursc. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Furchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectable Accounts
18. Partanerfilim Accounting-Formation-Operition
19:- Partnersilip. Accounting-Dissoletion Prorlems-Ioint Ventures
19. Corporation Accounting-Formation-Operation
20. Corporation Accounting--Reorginizations-Mergers
21. The Voucher System
22. Factory Accounting-Manufacturing Statement fat
23. Factory Accounting-Perpetual Intentory-Oterhead Distrirution
24. Classification oh Accounts
25. Single Entry
26. Accounting for Nontrading Concerns
27. Agency Accounts-Branches-Consignments
28. Comparative Statements
29. Analyses of Fívanchal Statements-General Review

## ACCOUNTING PROCEDURE FOR PROMISSORY NOTES

Promissory Notes in Business. Almost every business operating on a credit basis receives or gives promissory notes. They have become a great convenience in business, because they can be used as temporary substitutes for cash.

For example, customers who are unable to pay their accounts, when due, may be required to give a note for 30 or 60 days. The customers thus benefit by receiving an extension of time, and the business also profits, since it can either transfer these notes to a bank and thus receive working capital, or it can transfer them to creditors in settlement of its accounts. When a business buys machinery or other assets for a large sum, it may pay part cash, and offer a note for the balance. When it borrows money from a bank or an individual, it gives its note.

Transactions like these indicate how important and valuable promissory notes have become to the business world. Their chief value lies in the fact that when they are properly drawn up they can be transferred easily from one person to another.

Furthermore, notes are written evidence of obligations. This is the reason why they are usually preferred to open accounts. Notes can be presented in court as evidence, in themselves, of indebtedness, while an open account requires proof for each item that is owed.

Features of Importance to Accountant. Since promissory notes are used so commonly in business transactions, it is essential in your study of accounting that you not only become familiar with the standard forms of notes, but also know how to record properly all note transactions, both in the accounts and in the special books provided for this purpose. We are concerned chiefly at this point with the accounting procedure and not with the legal aspects, which are treated later in the Business Law Section of the course.

We shall, therefore, take up those features with which you, as an accountant, will be expected to be familiar:
I. The Standard Forms of Promissory Notes.
II. Entries on the Books of Account for Various Transactions Involving Notes.
III. The Special Note Registers.

## I. STANDARD FORMS FOR NOTES

Form of Notes. Promissory notes are set up in various forms, to meet the needs of various kinds of transactions. The wording and arrangement need not always be exactly the same; but notes are usually set up so as to conform to a more or less uniform standard. This uni-
formity has been brought about both by business practice and the requirements of the law.

As notes came to be used more extensively, laws governing their use were adopted. In 1896 the Commissioners on Uniform State Laws recommended a bill, governing the use of notes, to the various state legislatures for adoption. This law is known as the Uniform Negotiable Instruments Law. All the states in the Union have adopted it except Georgia. The Canadian Parliament has also passed a similar law, called the Bills of Exchange Act, for the provinces of Canada, and in England and thruout the English-speaking world, similar legislation has been enacted.

Negotiable Instruments. The Uniform Negotiable Instruments Law defines a negotiable promissory note as "an unconditional promise in writing made by one person to another, signed by the maker, engaging to pay, on demand or at a fixed or determinable future time, a sum certain in money to order or to bearer."

When a promissory note fulfills all these requirements, it is said to be negotiable; that is, it can be transferred like money, from one person to another. Notes that are not negotiable are also used in business; they are valid, and should be recorded on the books in the same way as those that are negotiable, but the person who holds a nonnegotiable note cannot pass it on as easily as he can a negotiable instrument. The nonnegotiable note requires assignment, and the person to whom it is assigned does not acquire any better title to the note than was possessed by the person who assigned it to him. Because of this, it is much more difficult to discount nonnegotiable notes than negotiable notes.

Two of the most commonly used notes are the short-term note and the demand note.

Form of Short-Term Note Illustrated. By short-term note is usually meant a note that does not run over one year. Most short-term notes mature in 90 days or less. Figure 1 shows a three months' note.

If the note read, "I promise, etc., on condition that John Jones audit my books," or if it read, "I promise to pay to the order of John Jones, one hundred dollars, and give him, in addition, my automobile, valued at $\$ 300, "$ it would in neither case be negotiable. In the first case the promise would be conditional, and in the second case the promise is not alone to pay a certain sum in money, but to do something additional. The note, however, in either case would be valid, and it would be binding, but Jones could not legally pass it on to a third party by indorsement and delivery. It could, however, be assigned. ALL notes, whether negotiable or not, are to be recorded by the accountant, provided they represent a valid business transaction.

Parties to Note-Maker and Payee. The party signing the note is called the "maker." The party to whom the note is made payable is called the "payee." In the note under consideration, therefore, Jacob Smith is the maker, and John Jones is the payee. This note is a note receivable, an asset, to John Jones, and it is a note payable, a liability, to Jacob Smith.


Short-Term Promissory Note
Figure 1. This promissory note is an unconditional promise in writing, made by Mr. Smith to Mr. Jones, or order, properly signed by Mr. Smith, engaging to pay at a determinable time a certain sum of money, $\$ 400.00$. Evidently the note is negotiable. You frequently find the phrase, "For value received," included in promissory notes. This feature is not essential to making the note negotiable. The time of payment may also be stated in various ways. We might have worded it this way: "March 20, 1922, I promise," etc. Sometimes the maker's address is also included. Because of these variations it is important that you, as an accountant, familiarize yourself with the various kinds of notes, especially those most commonly used in business.

The Demand Note. The demand note has the same form as the shortterm note in all respects except the time element. In place of the specified or determinable date of a short-term note, the demand note reads, "On demand I promise," etc. A demand note, therefore, is payable whenever the payee presents the note to the maker for payment.

## II. ENTRIES FOR PROMISSORY NOTES

In explaining the entries for transactions involving notes, we shall first consider only notes not bearing interest, and later in the lesson take up entries for notes bearing interest.

Notes Receivable and Notes Payable Accounts. All notes which are received from outsiders are assets and are debited to a Notes Receivable Account. When notes are given to outsiders they are credited to a Notes Payable Account, because they are liabilities. Long-term notes, mortgage notes, and bonds are entered in special accounts, separate from the shortterm notes.

In the illustration, Figure 1, Jacob Smith gave the note to John Jones in settlement of an open account. Immediately before the note was issued, Smith's ledger contained an account for Jones. This account showed a credit balance. At the same time, in the ledger of Jones there appeared an account with Jacob Smith, having a debit balance.

In other words, Smith owed Jones at least $\$ 400.00$. On account of the legal recognition of promissory notes and the ease with which they can be transferred, Jones preferred to have this legal written recognition of the debt rather than an open account, which would be rather difficult to turn over to anyone else in exchange for money; accordingly Jones is glad to accept the note.

## Entries for Notes When They Are Issued

1. Note Issued in Settlement of an Account. At the time of issuing the note, shown in Figure 1, Smith will make the entry in Figure 2.

JOURNAL (Jacob Smith)

| DATE | FOL. | ENPLANATION | DEBIT | CREDIT |
| :---: | :---: | :---: | :---: | :---: |
| Dec. 20 |  | Accounts Payable (John Jones) | 40000 |  |
|  | Notes Payable |  |  |  |

Journal Entry for Issue of Note
Figure 2. Where the entry is posted as shown here, the controlling account, Accounts Payable, is debited and a new liability is set up under the heading Notes Payable. Jones's personal account in the subsidiary ledger is also debited.
When Jones receives the note he makes the entry in Figure 3.
JOURNAL (John Jones)


Entry for Receipt of Note
Figure 3. The indebtedness of Smith to Jones still exists, but it appears in another form; namely, in the Notes Receivable Account. The entry in Figures 2 and 3, as you will observe, is for the face value of the note, and in each case must be entered in the appropriate controlling account.
2. Note Issued for a Loan. The foregoing entries are based on the assumption that Smith was a customer of Jones and that the note was given in settlement of an open account.

If such were not the case, and if Smith borrowed $\$ 400.00$ from Jones, the entries on both Smith's and Jones' records would be made in the cash book.

Smith would enter the transaction in his cash book, as in Figure 4.

CASH RECEIPTS (Jacob Smith)

| DATE |  | L.F. | ACCOUNT CREDITED | EXPLANATION | Cash Dr. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1921 \\ & \text { Dec. } \end{aligned}$ | 20 |  | Notes Payable | To John Jones | 40000 |  |

Figure 4. Cash Book Entry for Issue of Note
Jones would make the entry in his cash disbursements book, shown in Figure 5.

CASH DISBURSEMENTS (John Jones)

| DATE | L.F. | ACCOUNT DEBITED | Explanation | Cash Cr. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|l} \hline 1921 \\ \text { Dec. } & 20 \\ \hline \end{array}$ |  | Notes Receivable | Loan to Jacob Smith | 40000 |  |

Figure 5. Cash Book Entry for Receipt of Note

## Entries When Notes Are Transferred

Jones, the payee, holds the note as he does any other item of current assets. If Jones is in need of funds, this note provides an easy means of securing such funds, as it may be discounted at his bank (assuming of course, that the parties to the note have a credit standing which the bank is willing to recognize). It is not uncommon, also, to find that notes will be transferred to creditors in payment or as part payment of an account. Let us assume that Jones, in turn, owes money to the Cox Manufacturing Company, and wishes to turn the note over to them, in payment of his account. This he can do by indorsement, because the note is negotiable, since it meets all the requirements of the Uniform Negotiable Instruments Law.

But before he turns this note over to the Cox Manufacturing Company on December 27 he must indorse it; that it, write his name on the back of the note. There are several kinds of indorsements that Jones can use, and the kind of indorsement he uses will determine what entries are to be made on the books of account.

1. Qualified Indorsement. Jones can write on the back of the note, "Pay to the order of the Cox Manufacturing Company, without recourse. -John Jones." This kind of indorsement releases John Jones from any liability on the contract of indorsement. If Smith fails to pay the note at maturity Jones will not be required to pay, on the ground that he indorsed the note, altho he may be held liable on other grounds, discussed in the Business Law Section.

The entry on Jones's books for this transaction is given in Figure 6:

JOURNAL (John Jones)

| $\begin{aligned} & 1921 \\ & \text { Dec. } \end{aligned}$ | 27 | Accounts Payable (Cox Manufacturing Co.) <br> Notes Receivable <br> Transferred Smith's note to apply on account | 400 | 00 | 400 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 6. Journal Entry for Transfer of Note
When the Cox Manufacturing Company receives this note an entry as shown in Figure 7 will be made.

JOURNAL (Cox Manufacturing Co.)

| $\begin{aligned} & 1921 \\ & \text { Dec. } \end{aligned}$ | 27 | Notes Receivable <br> Accounts Receivable (John Jones) <br> Received Smith's note from Jones in settlement of his account | 400 | 00 | 400 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 7. Journal Entry for Indorsed Note
2. Indorsement "In Blank" or "In Full." If, however, the Cox Manufacturing Company refuses to accept the note indorsed "without recourse," Jones may be asked to indorse it "In Blank" or "In Full." If he uses the "In Blank" indorsement, he will merely write his name on the back of the note. If he uses the "In full" indorsement, he will write, "Pay to the order of the Cox Manufacturing Company-John Jones."

Both of these indorsements signify that if Smith fails to pay the note at maturity, Jones, the indorser, must pay the legal holder of the note, if the legal holder takes proper steps to fix his liability. In other words, Jones, by indorsing "In full" or "In blank" has assumed a liability that may or may not develop. It is therefore spoken of as a "contingent" liability since it is contingent upon Smith's failure to pay.

Assume that Jones indorsed Smith's note "In full," and gave it to the Cox Manufacturing Company. Instead of crediting the Notes Receivable Account as he did when he endorsed the note "without recourse," he will make the entry in Figure 8:

JOURNAL (John Jones)

| $\begin{aligned} & \overline{1921} \\ & \text { Dec. } \end{aligned}$ | 27 | Accounts Payable (Cox Manufacturing Co.) <br> Notes Receivable Discounted <br> To show the contingent liability assumed upon indorsing Smith's Note transferred to the Cox Manufacturing Company | 400 | 00 | 400 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 8. Entry Showing Contingent Liability
Assignment 11, Page 6

Purpose of Notes Receivable Discounted Account. Mr. Jones will not credit Notes Receivable Account, because such an entry would not show that he may have to pay it sometime later. He therefore sets up a new account, called "Notes Receivable Discounted," to which he credits the amount of the note. This credit is a warning on his books that a contingent liability exists.

This account, Notes Receivable Discounted, is not a liability account but is called a valuation account. It is nothing more than the credit side of the Notes Receivable Account set up as a separate account for the time being, and is to be considered in determining the true value of the asset, Notes Receivable.

Notes Receivable Discounted on the Balance Sheet. If the Notes Receivable Discounted Account has a balance at the time the balance sheet is set up, this amount should be shown somewhere on the balance sheet, since it represents a contingent liability.

It can be shown in one of three places:

1. As a deduction from the Notes Receivable amount on the asset side, with the net amount of Notes Receivable extended in the column for asset amounts.
2. On the liability side, in short, that is, not extended in the column for liability amounts.
3. In a footnote at the bottom of the balance sheet.

Entries When Note Is Paid by Maker
Continuing the history of Smith's note, if Smith pays the Cox Manufacturing Company at maturity, the following entries are made:

In the Cash book of the Cox Manufacturing Company (Receipts side). See Figure 9.

CASH RECEIP'TS (Cox Manufacturing Co.)

| DATE |  | L.F. | ACCOUNT CREDITED | EXPLANATION | Cash D |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1922 \\ & \text { Mar. } \end{aligned}$ | 20 |  | Notes Receivable | From Jacob Smith in payment of note | 400 | 00 |  |

Figure 9. Estry When Note Is Redeemed
In the Cash book of Jacob Smith (Disbursements side). See Figure 10.

CASH DISBURSEMENTS (Jacob Smith)

| DATE |  | L.F. | ACCOUNT DEBITED | EXPLANATION | Cash Cr. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922 <br> Mar. | 20 |  | Notes Payable | Paid to Cox Manufacturing <br> Company | 400 |  |

Figure 10. Entry for Payment of Note
John Jones will make the entry given in Figure 11:
JOURNAL (John Jones)

| $\begin{aligned} & \overline{1922} \\ & \text { Mar. } \end{aligned}$ | 20 | Notes Receivable Discounted <br> Notes Receivable <br> Relieved of Contingent liability since Smith paid holder of note we indorsed | 400 | 00 | 400 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 11. Entry on Books of Indorser
By this journal entry Jones writes off his contingent liability, and his Notes Receivable Account will show the net amount of Notes Receivable. The question arises, How will Jones know that he is released from his contingent liability, and that he is justified in making this entry? The Negotiable Instruments Law specifies with considerable definiteness the time within which the holder of the note must notify an indorser of his liability, in case the maker does not pay. Therefore, if Jones receives no such notice in the prescribed time, he will be justified in making the journal entry.

Procedure in Case Note Is Dishonored. If Smith fails to pay $\$ 400.00$ on March 20, 1921, the Cox Manufacturing Company will probably notify Jones, the indorser, thus giving him an opportunity to pay, without incurring any legal expense. If Jones does not pay, in other words dishonors the note, the company will protest it. The company will turn the note over to a notary public who will go to the maker and demand payment. The notary will fill out a certificate of protest, and send the indorser a notice of protest, thereby fixing his liability. The contingent liability thus becomes a real liability to the indorser upon receipt of such a notice. John Jones will therefore be required to pay $\$ 400.00$ to the Cox Manufacturing Company, the face of the note, and also the expenses incurred in protesting the note. Assume here that the protest fee is $\$ 2.00$.

Entries for Dishonored Notes
When a note is dishonored, the holder of the note will undertake to collect from the indorser. Accordingly, entries must be made on the books of both parties.

Entries Made by the Payee. At the time the Cox Manufacturing Company took over the note from John Jones, they made the entry in Figure 12.

JOURNAL (Cox Manufacturing Co.)


Figure 12. Entry for Transfer of Note
Now when Smith dishonors the note, the Cox Manufacturing Company will pay the protest fee, will write off the note in the Notes Receivable Account, and charge Jones with the face of the note, $\$ 400.00$ by the entry of Figure 13.

JOURNAL (Cox Manufacturing Co.)


Figure 13. Entry for Dishonored Note
The payment of the $\$ 2.00$ protest fee is also charged to John Jones's open account, thru the cash disbursements book. See Figure 14.

CASH DISBURSEMENTS (cox Manufacturing co.)

| DATE | L.F. | ACCOUNT DEBITED | EXPLANATION | Cash Cr. | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1922 <br> Mar. | 22 |  | Accounts Receivable <br> (John Jones) | Protest Fees on dis- <br> honored note. | 200 |

Figure 14. Entry for Protest Fee

Some accountants would prefer to charge the total $\$ 402.00$ to a "Notes Dishonored" account instead of to Jones' personal account, because by charging it to an open account it would appear that the nature of the claim was changed from a note claim to an open account claim. They say that the Cox Manufacturing Company's claim is still on the note; therefore, it should be transferred to a note account, called Dishonored Notes.

If this is done, however, the fact is not clearly stated on the books that it was Jones who transferred the note that was dishonored later. This fact the Cox Manufacturing Company should have clearly recorded on its books for future reference in its dealings with Jones. For this reason, we prefer to charge the total $\$ 402.00$ to the open account of John Jones, instead of to a Dishonored Note Account.

Entries Made by the Indorser. John Jones' account in the ledger of the Cox Manufacturing Company will now show a total debit balance of $\$ 402.00$.

John Jones' books show a contingent liability of $\$ 400.00$. The Cox Manufacturing Company, however, now has a claim on John Jones for $\$ 402.00$. When Jones pays this, March 23, 1922, he will make the entry of Figure 15.

CASH DISBURSEMENTS (John Jones)

| DATE | L.F. | ACCOUNT DEBITED | EXPLANATION | Cash Cr. | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1922 |  |  |  |  |  |
| Mar. | 23 | Notes Receivable Dis <br> counted <br> Jacob Smith | For Jacob Smith's note |  |  |

Figure 15. Enthy for Payment of Dishonored Note by Indoreer
Thus he charges Smith, the maker, with the protest fee, because it is an expense incurred by Smith's not paying the note.

Jones will also make a journal entry charging Smith with the face value of the note as given in Figure 16.

JOURNAL (John Jones)


Figure 16. Entry for Dishonored Note
The total charge on Jones' books against Smith is now $\$ 402.00$.

Entries Made by the Maker. Now, Jones holds the note, and will try to collect $\$ 402.00$ from Smith. If Smith pays the $\$ 402.00$, Smith makes an entry in his cash book on the disbursement side as shown in Figure 17.

CASH DISBURSEMENTS (Jacob Smith)

| DATE | L.F. | ACCOUNT DEBITED | EXPLANATION | Cash Cr. | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Notes Payable <br> Expense | For note previously <br> dishonored <br> Protest Fees | 400 <br> 200 |  |

Figure 17. Entry for Payment by Maker
Jones records the receipt of cash in his cash book as in Figure 18.

CASH RECEIPTS (John Jones)

| DATE | L.F. | ACCOUNT CREDITED | EXPLANATION | Cash Dr. | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | Jacob smith | For dishonored note plus <br> protest fees | 40200 |

Figure 18. Entry When Dishonored Note Is Paid

If Smith refuses to pay his open account with Jones, Jones will either write off the $\$ 402.00$ as a loss like any other loss on bad debts, or he will bring suit against Smith, and will present the note as evidence of Smith's indebtedness.

## INTEREST-BEARING NOTES

Up to this point interest has not been considered. In the preceding case the note did not bear interest. When you are dealing with interestbearing notes, two things must be considered:

1. The calculation of interest.
2. Entries on the books for notes bearing interest.

It is assumed that you understand the methods of calculating simple interest, and we shall therefore not go into that at this point. If you are a little out of practice on interest calculations, a brief review of the subject in any easily obtainable elementary text on arithmetic will be of value at this point.

Interest Accounts. Interest may be thought of as the "wages" of money or the "rent" of money. It will cost us something to secure the use of money, just as it would cost something to secure the use of a house. If, on the other hand, we have more money than we can use, it will earn something if we lend it to someone who can employ it to advantage. Thus, there is need for an Interest Expense Account and an Interest Earned Account.

Occasionally where interest transactions are few and small in amount one Interest Account, which is charged with Interest Expense and credited with Interest Earned will suffice, but if interest enters into the accounts often, it will simplify the accounting to have two interest accounts. Accounting in general is opposed to "mixed accounts," i. e., accounts in which are entered several distinct values, as interest expense and interest income. Mixed accounts never add clearness, rather the opposite.

The entries for simple interest of both kinds are shown below:


Calculation of Discount-Entries on Books. Closely related to interest is bank discount. If we borrow $\$ 100.00$, and at the expiration of the time pay back $\$ 102.00$, the two dollars are called interest. If we give our note, promising to pay $\$ 100.00$, and receive for it $\$ 98.00 \mathrm{in}$ cash, the two dollars which the bank deducts is called bank discount. In effect, then, bank discount is simply interest paid in advance. In accounting it is customary to enter bank discount in the Interest Account and not set up a special account for it, except for purposes of analysis.

Here are four typical cases in which the calculation and entry of discount are involved:

$$
\begin{array}{ll}
\text { Case 1. Discounting our note at the bank } \\
\text { Case 2. } & \text { Discounting a noninterest-bearing note for a customer } \\
\text { Case 3. Transferring a customer's note to a creditor } \\
\text { Case 4. } & \text { Discounting an interest-bearing note for a customer }
\end{array}
$$

Case 1. Discounting Our Note. April 1, 1922, we discount our 30-day note for $\$ 200.00$, and deposit the proceeds with the bank. The note does not bear interest, but it is discounted at 6 per cent.

We cannot make the entry until we have calculated the amount of the discount. First, then, there is a simple problem in interest, viz., $\$ 200.00$ at 6 per cent for 30 days. The discount is found to be $\$ 1.00$. By deducting this discount from the amount of the note, we find the proceeds, that is, the amount of cash received from the bank.

The accounts will be affected thus: Cash is increased by this transaction, our liabilities on outstanding notes payable are increased, and we have incurred an expense of $\$ 1.00$ in securing this loan. From such an analysis the facts can be entered in the accounts thru the cash book as shown in Figure 19.

CASH RECEIPTS

| Date | L.F. | Account Credited | ExplanationAccount <br> Receiv- <br> able <br> Credit | General <br> Ledger <br> Cr. | Net <br> Cash | Total |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | ---: |
| 1922 <br> April | 1 |  | Notes Payable <br> *Interest and <br> Discount |  | 20000 |  |  |

Entry for Discount of Our Own Note
Figure 19. The asterisk $\left({ }^{*}\right)$ means that the $\$ 1.00$ item is entered in red ink, so that at time of posting it will be posted as a debit and not a credit. Some accountants would prefer to credit Notes Payable with the net amount of cash received, $\$ 199.00$, and then make a general journal entry, debiting Interest Expense and crediting Notes Payable with the $\$ 1.00$ discount. In this way, however, the transaction is split up in two places, part being put in the cash book and part in the general journal. The red-ink entry, as shown above, is therefore usually preferred.

At the expiration of the 30 days we would be called upon to pay the face value of the note. The entry would then be on the disbursements side of the cash book as in Figure 20.

CASH DISBURSEMENTS

| DATE | L.F. | ACCOUNT DEBITED | EXPLANATION | Cash Cr. | Total |
| :--- | :--- | :--- | :--- | ---: | ---: |
| 1922     <br> May 1  Notes Payable Payment of 30-day note |  | 200 |  |  |  |

Figure 20. Entry for Payment of Note
There is no question of interest or discount at this time, since that charge was deducted in advance. We are now repaying $\$ 200.00$ to the bank, altho we received in actual cash only $\$ 199.00$; thus the lender does not receive in cash the earning from his money until the loan is paid.

Case 2. Discounting Note for a Customer. It often happens that a merchant is owed a sum of money by an individual who desires postponement of payment. In such a case, the customer may offer the merchant a promissory note for the amount of the debt; the merchant may be willing to accept the note, but since the debt is due now he is justified in accepting the note. The credit he will allow will be less than the face value. That is, the merchant may accept a $\$ 300.00$ note as being worth only $\$ 297.00$, in partial settlement of a debt of $\$ 300.00$. The $\$ 3.00$, which the merchant ultimately receives in excess of the $\$ 297.00$ credit allowed, is in the nature of interest (or discount) and reimburses him for the inconvenience of extending the time of final payment as the customer requests.

To illustrate, on April 1, 1922, we discount a customer's 60-day noninterest bearing note, for $\$ 400.00$, at 6 per cent, and apply the proceeds to the partial settlement of his account with us. What we must do here, as indeed we had to do in Case 1, also, is to find the present value of this note, that is, its value to-day in view of the fact that payment is not to be received until 60 days hence. A dollar in hand to-day is worth more than a dollar promised in 60 days, or a year hence, because in that intervening time the dollar can earn interest. That is, to take the promise of a dollar, instead of an actual dollar, is to forego the possible interest to be had in immediately lending the dollar again. Therefore, business men usually require some compensation for foregoing present payment when a debt becomes due.

In the case before us, we can hardly accept the $\$ 400.00$ note in settlement of a full $\$ 400.00$ debt, for to do so would be to forego the possible interest we could earn, if we had received the cash, as we are entitled to. Therefore, we calculate the present value of the note and allow the customer credit for that amount.

The present value may be considered in this discussion as the maturity value (i.e., the value at the due date) less the discount calculated from
to-day, the day of discount, to the day of maturity. Expressed in formula, this becomes:

Present value=Maturity Value Minus the Discount.
Discount $=$ Maturity Value $\times$ rate $\times$ time.
Discount is thus seen to be a problem in interest calculation.
The facts, then, are as follows: Maturity value, $\$ 400.00$; discount, $\$ 4.00$; present value, $\$ 396.00$. From these facts the journal entry is easily constructed, as shown in Figure 21.

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| 1922  <br> April 1 <br>   | Notes Receivable <br> Accounts Receivable <br> Interest Earned <br> Received customer's 60 day note at six per cent discount | 400100 | 396 |  |
| :---: | :---: | :---: | :---: | :---: |

Figure 21. Discounting Customer's Note
Here we express the fact that we have received a $\$ 400.00$ addition to our Notes Receivable, that $\$ 396.00$ of the preexisting Accounts Receivable has been canceled, and that by accepting this note in lieu of cash in hand we have earned $\$ 4.00$.

As in Case 1, the money for the earning is not received until the note is paid, but we know that this does not alter the present entry, for earnings are shown when earned, not when collected; and expenses are shown as costs when incurred, not when paid. The cash entry made later when the note is paid is given in Figure 22.

## CASH RECEIPTS



Figure 22. Customer's Note Paid

In this, it will be observed that the entry to be made, in comection with a note, is not affected by the fact that the note has been discounted.

Case 3. Discounting Customer's Note by Transferring to a Creditor. Assume that thirty days after receiving the above note (Case 2), we turn it over to someone we owe, at its then present value. Discount at 6 per cent.

The calculation is the same as in Case 2, the only change being in the "time" element. The present value, as before, is the maturity value less the discount for the unexpired time. The facts are these: maturity value, $\$ 400.00$; discount (for 30 days), $\$ 2.00$; present value, $\$ 398.00$. These facts are journalized in Figure 23.

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| $\begin{aligned} & 1922 \\ & \text { May } \end{aligned}$ | 1 | Accounts Payable <br> Interest Expense <br> Notes Receivable Discounted <br> Indorsed a customer's 60 day note over to a creditor | 398 | 00 00 | 400 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 23. Transfer of a Note Previously Discounted

Here we give up a note with a maturity value of $\$ 400.00$, but we are not allowed that much for it, since the creditor is now in the position we were in in Case 2, and he will not be willing to defer payment unless compensated. On our side, the two dollars deducted in finding the present worth becomes an expense, since we part with a $\$ 400.00$ value, and only discharge $\$ 398.00$ of the debt thereby.

Our relation to this note has been that we received it from a customer in discharge of his debt; that we held the note for 30 days; and that we in turn gave the note over to one of our creditors in discharge of our debt. When originally received, the note was valued at $\$ 396.00$ and, if we had held it until maturity, we would have received $\$ 400.00$ for it, thereby earning $\$ 4.00$. But we hold it for one month only. We, therefore, cannot expect to earn the full $\$ 4.00$, as our creditor, if he holds the note for the remainder of the time, will also expect to earn something. The journal entry for Discount under Case 2 is based on the assumption that we will hold the note to maturity and earn $\$ 4.00$. The journal entry above in Case 3 shows $\$ 2.00$ debited to Interest Expense to express the fact that our income is $\$ 2.00$ less than it was previously calculated to be. With $\$ 2.00$ in Interest Expense and $\$ 4.00$ in Interest Income the net result is that we have earned only $\$ 2.00$. This is equivalent to interest on our money during the one month in which it was invested in the note.

If we turned the note (in Case 3 above) over to our bank instead of a creditor, the entries would be nearly the same. The debit to Accounts Payable would be replaced by a debit to cash or bank, other items remaining the same as in the last journal entry above.

There are other cases in connection with the discounting of notes still to be considered. They are similar to Cases 2 and 3, but they are different in that these new cases involve the discounting of interest-bearing notes.

Case 4. Discounting Customer's Interest-Bearing Note. On April 1, 1922, we discount a customer's 60 -day note (face, $\$ 500.00$, with interest at 5 per cent), and apply the proceeds to the partial settlement of his account with us. The discount rate is 6 per cent.

You should observe here that the calculations of discount on an interestbearing note, and on a noninterest-bearing note differ slightly. The difference lies in the amount used as "principal."

It has been pointed out that discount was calculated on "maturity value," as the principal. That holds true whether the note bears interest or not, but the maturity value of an interest-bearing note is not the same amount as it would be if the same note were noninterest-bearing. A note which bear's interest accumulates that interest day by day until maturity. At that last date when the note is due, the interest on it is due as well, so it may be said that the note is worth at that time the face value plus the interest.

The maturity value, then, of an interest-bearing note is the sum of the face value and the interest; the maturity value of a noninterest-bearing note is only the face value.

The calculations for the transaction given above are as follows:

$$
\$ 500.00 \text { face value }
$$

4.17 interest at $5 \%$ for 60 days (Unearned)
$\$ 504.17$ maturity value
5.04 discount on maturity value for 60 days at $6 \%$ (Earned)
$\$ 499.13$ present worth of note, or amount of credit allowed customer.
The entries on our books will appear as in Figure 24.
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Figure 24. Discounting Interest Bearing Note

The 87 cents credited to Interest and Discount Account is the difference between the unearned interest $\$ 4.17$ and the earned interest $\$ 5.04$. This 87 cents represents the net earning that we make on the transaction. We receive a note that bears interest at 5 per cent, and give the customer credit for the maturity value (face value plus interest) minus a 6 per cent discount. The extra 1 per cent is an earning for us.

A similar case more often met, is one in which our customer indorses over to us an interest-bearing note he has received from a third party some time previous.

Assume that John Henderson (our customer) owes us $\$ 800.00$, and in partial settlement of his account indorses over to us the note he holds from J. P. Kline. This note, dated October 25, 1921, is to run for 60 days; it is for the amount of $\$ 600.00$ and draws interest at the rate of 5 per cent. It is indorsed over to us on November 3 at a discount rate of 6 per cent. The calculations preceding the formation of the entries are as follows:

```
$600.00 face value.
5.00 interest at 5 per cent for 60 days. (Unearned.)
```

$\$ 605.00$ maturity value.
5.14 discount on M/V at 6 per cent for 51 days (November 3 to December 24, the date note is due). (Earned.)
$\$ 599.86$ present worth, or amount allowed Henderson on the note.
A brief analysis will now make clear the accounting entries to be made from the facts shown in the above calculation.

We have acquired a note with a maturity value of $\$ 605.00$. To show this fact properly in our accounts, it is necessary to show the Notes Receivable Account increased $\$ 600.00$. Thus, our ledger is made to indicate that we are ultimately to receive $\$ 600.00$ from the settlement of the note. The $\$ 5.00$ Interest is still unearned, but if we hold the note until maturity we can expect to receive this amount also. Some accountants would prefer to set up this $\$ 5.00$ as Interest Receivable, and offset it with the full amount of discount.

Altho we have thus acquired a claim to a future payment of $\$ 600.00$, we cannot afford to give our customer (Henderson) credit for this amount, because our money will be tied up in this note until December 24. We therefore deduct a discount of $\$ 5.14$ for the unexpired time as our compensation for waiting still longer for our money. This discount is an earning. It is offset by the unearned Interest of $\$ 5.00$. The net amount is 14 cents, on the credit side. As such it should be credited to an income account-Interest Earned in this case. The present value of the note is the amount we can afford to allow Henderson credit for. Assembling these debits and credits, we have the entry set up in Figure 25.

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Figure 25
Other cases might be presented involving the discounting of interestbearing notes, but the principle of calculating discount, and the entries necessary on the books, will virtually be the same.

If vou understand fully the fundamental principles illustrated in the foregoing cases, you will know how to handle these transactions as they occur. For your convenience, a summary of these principles follows:

1. Interest is calculated on the face value for the time the note is to run.
2. Discount is calculated on the maturity value for the unexpired time the note has yet to run.
3. Maturity value is the sum of the face value and the total interest.
4. Present worth is the maturity value less the discount.
5. The unexpired time the note has to run is calculated from the date of discount to the due date, counting in only the due date, and not the date of discount.

## III. SPECIAL BOOKS FOR PROMISSORY NOTES

Notes Receivable and Payable Books. Little has been said, thus far in this assignment, on the various ways of handling note transactions in the special books of original entry. Most of the entries have been made in the general journal, because that is the way they are handled when a business handles only a small number of notes. When, however, the volume of note transactions is large, special books may be used to advantage as shown in Figures 26 and 27.

Used as Posted Mediums. These books are provided with special columns in which is recorded all important information in detail. In the case of notes receivable, one wants such facts as the date received, the party from whom a note is received, the face amount of the note, the amount of interest accrued at date of acquisition (if it has been transferred to someone other than the original payee), the name of the maker, the date of issue, the time to run, the rate of interest, date of maturity, where payable, and other facts showing whether the note was left with a bank for collection, the date paid, or the fact that it was dishonored, if such is the case, etc.

At the end of the period or oftener the notes receivable debited column is totaled, and the amount is posted as a debit to the Notes Receivable Account in the ledger. The corresponding credits are made to the proper accounts-Sales Account in the case of sale, and to the customer in case of the settlement of account, etc.

NOTES RECEIVABLE


## Notes Recelvable Book

Figure 26. Every column in this notes receivable book contains information that is important to the business, such as dates, names of persons from whom notes are

NOTES PAYABLE

| No. | When Given |  | Drawer and Indorser | Drawer or Maker | In Whose Favor | For What Given | Where Payable | DATE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Yr. |  |  |  |  | Month | Day |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \end{aligned}$ | 1922 <br> Feb . <br> Mar. <br> May | 21 6 18 |  | Wilfred Gass Perry Ragan | Wilfred Gass Wilfred Gass Acceptance | Elmer Smith John Wilkins Perry Ragan | Hardware <br> Lumber <br> Glass | Union Trust Co. Bank ${ }_{\text {On }}^{\text {On }}$ | $\begin{gathered} 1922 \\ " 1 \end{gathered}$ | Feb. <br> March <br> May | 21 6 18 |

## Notes Payable Book

Figure 27. You will notice that the notes payable book has columns similar to those in the notes receivable book, except the columns headed "When Given" and "For What
(Forms continued on opposite page.)

## NOTES RECEIVABLE



Notes Receivable Book
received, names of indorsers, time notes are due, and dates when collected. Some notes receivable books also have columns for the interest and amounts.

NOTES PAYABLE


Notes Payable Book
Given." Study the entries in this book and determine in your own mind what transaction is back of each entry.

The column "Amount" is totaled at the end of the month, and the total is posted as a credit to the Notes Payable Account in the ledger. The debits are made to Cash, Creditor's Account, Purchases, or any other proper account:

Note Books Used as Memorandum Records. Most businesses, however, prefer to use the notes receivable and payable books merely as subsidiary records for reference purposes only. In such a case, the notes are entered both in the note books and the general journal, but posted item by item from the general journal.

Special Columns for Notes. If special columns for notes are used in the general journal and cash book, it is well to have a special column in the journal for notes receivable and another for notes payable. This prevents the necessity of posting each note separately, since the total of each column is posted at the end of the month.

It may also be desirable to have a special column for notes receivable on the receipt side of the cash book for all cash received on notes from customers, and a column for notes payable on the disbursement side of the cash book for all payments on notes payable to creditors. This, however, depends upon the volume of such transactions. The total of the notes receivable column in the cash book is posted as a credit to the Notes Receivable Account, and the total of the notes payable coliumn is posted as a debit to the Notes Payable Account.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 11

The following problems are typical of situations which you will find in actual business. The problems are based on the principles explained in the discussion of this assigument and it is essential, therefore, to become thoroly familiar with the details of the lesson before you attempt to solve the problems.

1. On June 1, 1921, the B. F. Smith Company receives a promissory note from Robert Brown, one of its customers, for $\$ 500.00$, payable in 60 days. This note is given to apply on Robert Brown's account.
(a) Set up the note in proper form, and fill it out as it would appear, ready to be turned over to the B. F. Smith Company.
(b) At the time this note is delivered June 2, 1921, what entry should be made on the books of B. F. Smith Company?
(c) What entries are made on the books of Robert Brown?
2. On July 1, the B. F. Smith Company discounts this note at the First National Bank. The rate of discount is 6 per cent.
(a) If the B. F. Smith Company indorses this note "in full," how will the indorsement read?
(b) How does this indorsement affect the accounting records?
3. At the time of discounting this note at the bank,
(a) What entry is made on the books of B. F. Smith Company?
(b) What entry is made on the books of the bank?
4. On December 31, 1921; Mr. Green receives $\$ 197.00$ from the bank at the time of discounting his own $\$ 200.00$ note, payable in 90 days-
(a) What rate of discount was applied? Show calculation.
(b) What entry is made on Mr. Green's books at the time of discounting his note?
5. Open ledger accounts for Cash, Interest, and Discount, Notes Receivable, Notes Payable, and any other accounts that are necessary for the following transactions. Journalize the transactions first; but you are not required to send in the journal entries. Send in the ledger accounts. In these accounts enter the following transactions:

1921
Sept. 1.-You have on hand, cash $\$ 2,000.00$, and notes of customers $\$ 4,000.00$. Customers owe you $\$ 400.00$ on open account. You also owe creditors on notes amounting to $\$ 3,000.00$.
Sept. 2.-Received C. Leonard's check for $\$ 400.00$ in payment of his 60 -day note, due to-day.
Sept. 3.-Paid A. Kottler $\$ 550.00$ for your 30 -day note, due to-day.
Sept. 5.-Sent check for $\$ 1,015.00$ to M. Hogan in payment of 90 -day note, $\$ 1,000.00$, and interest at 6 per cent, due to-day.
Sept. 7.-Received from Horace George a check for $\$ 10.00$, two months' interest, at 6 per cent, due to-day on his note of $\$ 1,000.00$.
Sept. 8.-Discounted at the bank, William Hodgeman's 90 -day note of $\$ 500.00$, dated July 8, 1921, and received credit for the proceeds. Rate of discount is 7 per cent. We indorsed the note "in full."

Sept. 12.-Received at its present value, a six-months' promissory note for $\$ 320.00$ from R. Williams, to apply on his account. Discount rate is 6 per cent. The note is dated August 12, and bears interest at 5 per cent. It is indorsed in full by the maker, F. Webster.
Sept. 15.-Paid $\$ 30.00$ to Walter Lane, as interest for six months due to-day on your note to him for $\$ 1,000.00$.
Sept. 21.-Received from T. Logan $\$ 3.00$, six months' interest on his note of $\$ 100.00$.
Sept. 22.-Borrowed $\$ 1,000.00$ from the bank on a demand note, bearing 6 per cent interest.
Sept. 27.-Discounted A. Magill's 60 -day, $\$ 250.00$ note at the bank. This note was issued August 27, bears 5 per cent interest, and is discounted at 6 per cent.
Sept. 28.-Received notice that J. Francis refused to pay his $\$ 300.00$ note.
Sept. 30.-Received notice from the bank that B. Kendall's note for $\$ 125.00$, left with the bank for collection, has been collected and the amount credited to your account.

## Optional Problems

These problems are given in order that you may have additional practice in interest calculation. If you are entirely confident that you fully understand interest and discount calculation you need not solve them. If, however, you are the least bit "rusty" on this, we suggest that solutions be prepared and sent in.

Find the interest on:

1. $\$ 650$ for 110 days at 6 per cent
2. $\$ 125$ for 312 days at 7 per cent
3. $\$ 3,155$ for 37 days at 5 per cent
4. $\$ 920$ for 3 months at 7 per cent
5. $\$ 7,500$ for $91 / 2$ months at 5 per cent.
6. $\$ 375.75$ for 13 months at $4 \frac{1}{2}$ per cent

Show your work in each case if you choose to send in solutions.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

Assig̀nment 12

## DRAFTS, TRADE ACCEPTANCES and BILLS of LADING

THE successful accountant must almost instinctively sense what is demanded by the business executive. This is a most important qualification. If he can succeed in disclosing the contributing causes of the success or possible failure of a business, there is a fertile field of operation that will insure a reward commensurate with the efforts put forth.
H. HOUGH

Comptroller. The B. F. Goodrich Co.

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

\author{

1. The Balance Sheet <br> 2. The Profit and Loss Statement <br> 3. The General Ledger <br> 4. Closing the Ledger <br> 5. The Journal <br> 6. Closing the Ledger by Journal Entry <br> 7. The Cash Journal <br> 8. Merchandise Records-The Purchase and Sales Journals <br> 9. Subdivision of the Ledger <br> 10. Columnization <br> 11. Promissory Notes <br> 12. Drafts, Acceptances, and Bills of Lading <br> 13. Auxiliary Cash Records <br> 14. Other Auxiliary Books and Business Papers <br> 15. Finding, Correcting, and Preventing of Errors <br> 16. Accrued and Deferred Items <br> 17. Depreciation and Uncollectable Accounts <br> 18. Partnership Accounting-Formation-Operation <br> 19. Partnership Accounting-Dissolution Prorlems-Joint Ventures <br> 20. Corporation Accounting-Fornation-Operation <br> 21. Corporation Accounting--Reorganizations--Mergers <br> 22. The Voucher System <br> 23. Factory Accounting-Minufacturing Statement <br> 24. Factory Accounting-Perpetual Inventory-Overhead Distribution <br> 25. Ceassification of Accounts <br> 26. Single Entry <br> 27. Accounting for Nontrading Concerns <br> 28. Agency Accounts-Branches-Consignments <br> 29. Comparathe Statements <br> 30. Analyses of Financial Statements-General Review
}

## DRAFTS, TRADE ACCEPTANCES, AND BILLS OF LADING

In the preceding assignment, we mentioned the following two ways in which promissory notes facilitate business operations.

1. They are WRITTEN EVIDENCES of indebtedness and are, therefore, preferred to open accounts.
2. They can be READILY DISCOUNTED, that is, sold for cash or for credit, and thus additional working capital can be secured when needed.

Open accounts have always been more or less of a financial problem, because they tie up a large amount of capital; not only are they uncertain as to time of payment, but they often involve much expense before they are collected. In fact, many open accounts are never paid. As a result, business men have made extensive use, not only of promissory notes, but also of other documents, such as drafts and trade acceptances, for the reason that a debtor, it has been found, attaches more importance to his obligations where there is some physical evidence of it which is transferrable.

How Drafts Differ from Promissory Notes. A draft is a written order by one person to another person, requiring him to pay a certain sum of money to a third party. It differs from the promissory note in that it is an order to pay, instead of a promise to pay. There are three parties to a draft: the drawer, the drawee, and the payee. Very commonly in practice the draft is payable to "ourselves" (see Figure 12). In that case the drawer and the payee are one and the same party.

Various Kinds of Drafts. Drafts may be classified as to date of payment into two groups, sight drafts and time drafts. A sight draft states that the drawer orders the drawee to pay a certain sum of money to the payee "at sight." This means that the holder of such a draft can present it any time, like the holder of a demand note, and the drawee will be expected to pay. In other words, the debt is past due and the drawer wishes it paid upon presentation. The sight draft is a great aid in collecting delinquent accounts.

The time draft as opposed to the sight draft, specifies a fixed or determinable time when the amount is to be paid. For example a time draft drawn " 60 days sight," means " 60 days after the draft has been accepted by the drawee." "Sixty days after date" means that the account is payable 60 days from the date of the draft. When the draft has been accepted it is proper to refer to it as an "acceptance." This is in accord with modern business usage.

Drafts may also be classified as "commercial" or "bank," depending upon who the drawee is. If one person draws on another individual to pay a third party, we usually call the draft "commercial." If one bank orders another bank to pay a certain sum of money to a third party, we speak of it as a "bank draft."

Form of Draft. Drafts are set up in various forms according to the nature of the transaction and the terms of agreement. Business pactie, however, has adopted more or less standard forms, which will be reproduced thruout this assignment.

Assume for purposes of illustration that Ames owes $\$ 200.00$ to Clark, and Bates owes Ames $\$ 100.00$.

The draft as drawn by Ames, will cancel Bates' indebtedness entirely and partly cover his own debt to Clark.


The Draft
Figure 1. In this draft Ames is the drawer; Bates is the drawee or payer, and Clark is the payee. Note where the name of each party appears on the draft. What kind of a draft is this-sight or time, commercial or bank?

As it stands, this draft is merely a request or order. It does not bind Bates to pay Clark, hence no entry should be made on the books. The draft is not binding until Bates writes across the face, "Accepted, January 6, 1922," and signs his name below.

The Accepted Draft. The draft as it now appears in Figure 2 is called an accepted draft or "acceptance." By accepting the draft, Bates obligates himself to pay Clark $\$ 100.00$. The draft is now virtually the same as a promissory note, because Bates promises to pay a fixed amount at a determinable time. It becomes a note payable to Bates, and a note receivable to Clark. If Bates does not pay, then Ames is expected to pay. In other words Ames has a contingent liability, just as if he were the first endorser of a promissory note.

After the draft is accepted, Bates either returns it to Ames, who passes it on to Clark, or Bates sends it directly to Clark. In any case, Clark becomes the holder of the draft and the payee, unless he in turn transfers it to another party. A draft may thus pass thru the hands of many persons before maturity, and the last holder then becomes the payee.


The Accepted Draft
Figure 2. Sixty days after sight means 60 days after acceptance. Hence, it is necessary to include the date in the acceptance written across the draft.
Entries on Books for Accepted Draft. Since the acceptance of a draft represents a valid business transaction, it should be recorded on the books of the various parties concerned. The entries that follow record the facts for each step of the procedure:

1. On Books of Ames, the Drawer. There are two possible ways of making the entry on Ames' books.
(a) The customary way, which is incomplete.
(b) The more accurate way.

The customary entry on Ames' books would cancel in part Ames' indebtedness to Clark, and cancel entirely Ames' claim on Bates, as shown in Figure 3.


Entry for Accepted Draft
Figure 3. This entry is very commonly made, but it is incomplete because it does not bring Ames' contingent liability on the books. There will be nothing to show that Ames will have to pay Clark if Bates fails to pay.
A more accurate method is, therefore, desirable, because it shows the contingent liability, and analyzes the transaction more clearly step by step.

1. When Bates accepts the draft.


Another Method of Recording Accepted Draft
Figure 4. When Bates accepts the draft, the draft becomes a note payable for Bates. In other words it amounts to the same thing as if Bates were to give Ames his own note. That is why Notes Receivable Account is debited by Ames. Bates' account is credited, because his indebtedness to Ames on open account is settled by the accepted draft.
2. When the accepted draft is received by Clark. As soon as the accepted draft is transferred to Clark, Ames' debt to Clark is reduced by $\$ 100.00$ (the original debt was $\$ 200.00$ ), and Ames assumes a contingent liability. Hence the entry in Figure 5.

| 1922  <br> Jan. 7 |  | Clark <br> Notes Receivable Discounted <br> To show contingent liability assumed when Clark receives our draft accepted by Bates. | 100 | 00 | 100 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 5-Entry Waen Accepted Draft Is Received
3. Entries on books of Bates, the drawee. When Bates accepts the draft, his debt to Ames is canceled, but in place of it, another liability is assumed, which is virtually the same as a note payable. The entry in Figure 6 should therefore be made on Bates' books.


Figure 6-Entry by Drawee
4. Entries on books of Clark, the payee. When Clark receives the accepted draft, he acquires a new asset, and his claim on Ames is reduced by $\$ 100.00$. Accordingly, Clark will make the entry of Figure 7.

Assignment 12, Page 4

| Jan. <br> Ja22 | Notes Receivable <br> Ames <br> Received draft accepted by Bates, to apply <br> on account for Ames. | $100 \mid 00$ | 100 | 00 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Figure 7-Entry by Payee
Entries Necessary When Draft Is Paid. We will now assume that Bates pays Clark $\$ 100.00$ on March 6, 1922. When he pays this to Clark, Bates makes an entry in his cash disbursement book, from which the item will be posted as a debit to the Notes Payable Account.

On Clark's records, the receipt of $\$ 100.00$ will be entered in the cash receipts book, and posted as a credit to the Notes Receivable Account.

Ames' records will also be affected when Bates pays Clark $\$ 100.00$, since the contingent liability now ceases to exist for Ames. If Ames receives no notice within a reasonable time after the date of maturity, to the effect that Bates refuses payment, Ames is justified in taking the contingent liability from his books. The entry of Figure 8 will therefore be made on Ames' books.

| 1922  <br> Mar. 8 |  | Notes Receivable Discounted <br> Notes Receivable <br> Bates paid Clark $\$ 100.00$ on the draft accepted Jan. 6, 1922. | 100 | 00 | 100 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 8-Entry by Drawer When Draft Is Paid
What Entries Are Made in Case the Draft Is not Paid by Drawee. In case Bates refuses to pay Clark on March 6, 1922, entries are made in the same way, as explained in Assignment 11, page 9, for dishonored notes. Briefly stated, the following entries are necessary.

1. On the books of Clark, the payee, as given in Figure 9.

| $\begin{aligned} & 1922 \\ & \text { Mar. } \end{aligned}$ | 6 | Ames or Dishonored Notes <br> Notes Receivable <br> Bates refuses to pay Mr. Ames' draft. | 100 | 00 | 100 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Figure 9-Entry by Payee When Draft Is Dishonored
2. On the books of Ames when he pays Clark.

If Ames pays Clark $\$ 100.00$ on March 6, 1922, Ames will make the following entries:
(a) In the cash disbursements book, he will enter the $\$ 100.00$ cash payment. From the cash book, the item will be posted as a debit to the Notes Receivable Discounted Account, since the contingent liability has now become a real liability.
(b) Ames will now look to Bates for payment, and will therefore make the entry in the journal of Figure 10.

| DATE | FOL. | EXPLANA'TION | DEBITS |  | CREDITS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{l\|l} \hline 1922 & \\ \text { Mar. } & 7 \end{array}$ |  | Bates <br> Notes Receivable <br> To record the claim on Bates, on account of refusal to pay draft to Clark | 100 | 00 | 100 | 00 |

Figure 10-Entry by Drawer When Draft Is Dishonored
Entries for Discounted Drafts. Drafts that are negotiable can be transferred by indorsement from one party to another, just like negotiable notes, as explained in Assignment 11.

If we assume that Clark, for example, takes this draft to the bank on January 21, he will receive the proceeds, i.e., the face value of the draft, $\$ 100.00$, less interest for 45 days, or from January 21 to March 6. If the rate of discount is 6 per cent, Clark will receive $\$ 99.25$.

He will make the entry in his cash book, reproduced in Figure 11.
Cash Book (Receipts)

| DATE | L.F. | Account Credited | Explanation | Genera Ledge Cr. |  | Accounts Receivable Cr. | Net Cash | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922  <br> Jan.  <br>  21 <br>   |  | Notes Receivable Discounted <br> *Interest and Discount <br> * Entry in Red Ink | Draft from <br> Mr. Bates | $100$ | $00$ $75$ |  | 9925 |  |

Figure 11-Entry for Discounted Draft
When Bates pays the bank at maturity, both Ames and Clark will cancel their contingent liability by the same entry as was shown in Figure 8.

Commercial Draft Payable to Drawer's Own Order. In the time draft given above three different persons were involved: Ames drew on Bates in favor of Clark, and the draft is not payable until March 6, 1922. Drafts frequently are used for collection purposes, involving two persons,
one of whom represents two parties. In such a case, the drawer will order another party to pay a certain amount to himself, as illustrated by the following draft, or as frequently happens, to the drawer's bank. The draft is a commercial sight draft and appears as shown in Figure 12.


Commercial Draft to Pay Oneself
Figure 12. A. Merchant \& Co. is both the drawer and the payee, and A. Customer is the drawee. A. Merchant \& Co. will probably deliver this draft to its bank for collection. The bank will then present the draft to A. Customer for payment.

Usually the drawee will arrange to pay such a draft immediately upon presentation to avoid any impairment of his credit. The bank will charge a small amount, to cover collection charges, and credit A. Merchant \& Co. with the balance.

Entries for the sight draft are not made until the draft is actually paid.
Trade Acceptances. Now that you understand the meaning of the term "acceptance," namely, a draft accepted by the drawee, it will not be difficult for you to understand what is meant by trade acceptances, which are becoming very popular among business men. A trade acceptante is an acknowledgement of a debt by the buyer in favor of the seller, for merchandise that the seller had placed in the hands of the buyer; in other words, acceptances arising out of a sale of commodities are known as trade acceptances. Most European countries have been using trade acceptances for a long time, and now they are also being extensively used in the United States.

Purpose of Trade Acceptances. Trade acceptances make it possible to eliminate to a great extent the undesirable open accounts. They provide a surer method of collection. They ratify the sale of merchandise and thus prevent any disputes, either as to the amount or the date of paymint. They are considered, according to the Federal Reserve Act, a pereferred class of commercial paper, and are discounted at a lower rate. They insure more prompt payment by the purchaser, because he values his credit standing with the bank much more highly than his credit on open account with an individual or business.


Figure 13. This is a time draft, which, when accepted and given in exchange for a commodity, is spoken of as a trade acceptance.

Accounting Procedure for Trade Acceptances. The entries to be made are the same as for accepted time drafts explained on page 4. The trade acceptance becomes a note receivable to the seller, and a note payable to the buyer. When many trade acceptances are issued and received it is probably better to record the acceptances in special accounts, called Trade Acceptances Receivable and Trade Acceptances Payable, instead of the Notes Receivable and Notes Payable accounts.

Especially is this desirable, so that the amount of Trade Acceptances Receivable may be shown as a separate item on the balance sheet. Bankers pay considerable attention to the amount of Trade Acceptances Receivable on a balance sheet, as compared with Accounts Receivable, because from this comparison the banker can usually determine whether or not a business is employing sound credit policies.

Another reason for keeping trade acceptances in a separate account from other kinds of drafts and notes, is that the trade acceptances represent obligations from the date of sale, while the ordinary time drafts and notes may represent only a change in the evidence of an obligation. That is, the obligation may have been an open account which is now settled by a note or draft-merely a change in the physical evidence of the debt.

Special books may also be used for trade acceptances similar to the notes receivable and notes payable books. These records would be called trade acceptances payable and trade acceptances receivable books, and may be used as posting mediums if so desired.

If discounts are allowed, special columns may be included. In fact, three money columns would be necessary. For example, in the trade acceptances receivable book, these three columns would appear: Sales Ledger Account Credit, Sales Discounts Debit, and Trade Acceptances Receivable Debit.

In the trade acceptances receivable book are recorded all trade acceptances which have been sent to customers and returned properly accepted.

In the trade acceptances payable book are recorded all other acceptances which have been received from creditors and returned to them properly accepted.

Bills of Lading with Sight Draft Attached. Another convenient instrument intended to facilitate collection, is the bill of lading with sight draft attached. For example, an order may be received from a customer who has a poor credit standing, or who may be a new customer and wishes the goods delivered to him before his credit can be looked up.

In such a case the shipper sends the invoice directly to the customer, and sends an order bill of lading with sight draft attached to his own bank for collection.

Then the bank sends the draft and bill of lading to a bank in the city where the purchaser lives. It is necessary, however, that the shipper's bank indorse the bill of lading and draft before sending it to the buyer's bank. When this bank receives the bill of lading and draft, it sends a notice to the consignee requesting payment. The buyer then goes to his bank, pays the draft, and receives the receipted draft and the order bill of lading, which upon being properly indorsed entitles him to receive the goods.

The order bill of lading makes it possible for the seller to retain control over the goods until the buyer actually pays for them at delivery, and at the same time provides a convenient and sure method of collection. It also benefits the customer, since it makes possible a quick delivery of goods, without delay on account of looking up credit.

Commercial Paper Considered Same As Cash. The accountant should also be familiar with various kinds of commercial paper that are accepted by the bank as money.

## WILBUR LUMBER CO.

Pay to the order of Southern Mills Co. (\$257.29)

Two hundred fifty-seven and----------------29/100 Dollars
To FIRST NATIONAL BANK
Wilbur Lumber Co. waukesha, wis.

By H. Wilbur, President

The Check
Figure 14. In this check the Wilbur Lumber Co. is the drawer, the Southern Mills Co. is the payee, and the First National Bank is the drawee.

Cash means more than currency. It includes checks, bank drafts, express money orders, travelers' checks and postal money orders, cashier's checks, etc., all of which are used extensively in business.

When any of these instruments are used in business transactions, the accountant should consider them as cash, and record them in the Cash Account.

They are, however, in their essentials very similar to the ordinary sight draft. A check, for example, is a draft on a depository bank to pay another party, as is evident from Fig. 14 illustrating a check.

The certified check is the same as those shown in Figures 14 and 15, except that it carries the certification, by the bank's cashier, that the check is good, and the bank will hold the amount specified on the check until presentation of the check for payment.

The certified check usually bears this or a similar certification.

| Accepted |
| :---: |
| First National Bank |
| E. Jacobs, |
| Cashier. |

A cashier's check is a check drawn by the bank upon itself, in favor of some person or business.

The Wilbur Lumber Company could have used the cashier's check in Figure 15.


Figure 15-Cashier's Check
Another kind of business paper considered the same as cash, is the bank draft. Bank drafts are checks drawn by one bank on another; in other words they are in the form of sight drafts, payable upon presentation by the holder. A bank draft could have been used by the Wilbur Lumber Company, as shown in Figure 16.

## The First National Bank

> Waukesha, Wis., January 2, 1922 No. 111
> Pay to the order of $\quad$ Southern Mills Co.
> Two hundred fifty-seven and------29/100

$$
\underset{\text { MLLWAUKEE, wis. }}{\text { To FIRST NATIONAL }}\} \underset{ }{\text { E. Jacobs }}
$$

Figure 16-The Bank Draft

There are several other kinds of commercial paper commonly used in place of cash, such as express money orders, travelers' checks, and postal money orders. They are ordinarily used as convenient means of sending money to parties in another city. You are probably familiar enough with these instruments so that we do not need to illustrate them here. It is well, however, to note their relation to drafts and checks.

The express money order is a check issued by an express company. It is an order on the express office in the city to which it is sent to pay a fixed amount to a certain party.

The traveler's check is an instrument developed by the Bankers' Association, and is similar to the express money order, except that the order is drawn on a bank in New York City. Only those banks holding membership in the Bankers' Association are permitted to issue such orders.

The postal money order is similar to the express and bank orders, the difference being that the local postmaster issues the order upon written application by the sender, the order being good for a specified amount at another post office.

## SUMMARY OF IMIPORTANT POINTS IN THIS ASSIGNMENT

At this time, it is desirable to sum up briefly the most important principles of this assignment.
First. There are certain essential differences between drafts and notes.
Drafts are orders to pay. Notes are promises to pay. Drafts always involve three parties, two of which, however, in some cases may be the same person, while notes never involve more than two parties.
Second. Various kinds of drafts have been presented, viz.:
Time drafts, i.e., orders to pay at some fixed or determinable future time.

Sight drafts, those payable on presentation, like demand notes.
Commercial drafts, which are used by individuals and business houses in settlement of open accounts or financial debts.

Bank drafts-those drawn by one bank upon another bank, in transferring money to parties in another city.

Third. Formal acceptance is necessary, in the case of time drafts, to make them binding. Sight drafts are usually paid on presentation, without formal acceptance.

Fourth. In accounting for drafts, certain points are important to keep in mind. Time drafts are not recorded until accepted. The drawer's contingent liability should be set up on the books, when the time draft has been accepted and transferred to the payee. Discounted drafts are recorded like discounted notes. Sight drafts are not recorded on the books until they are paid.

Fifth. Commercial paper used in place of cash:
Checks, bank drafts, express, postal orders and travelers' checks.
These instruments are essentially orders to pay and are, therefore, very similar to ordinary drafts.
They are considered as cash, and so recorded on the books.
Importance of Applying These Principles. Thruout the assignment several illustrations have been presented in which certain fundamentals regarding drafts, acceptances, etc., have been presented.

The problems that follow will serve as a practical test of your knowledge of these principles. They emphasize the necessity of being familiar with all forms of negotiable paper. The accountant is expected to recognize the significance of each document and determine the nature of the transaction represented by each, so that he can make proper entries on the books.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 12

1. A draws a time draft 30 days after sight on $B$ for $\$ 300.00$, payable to C. The draft is dated January 2, 1922, and is accepted by B on January 4, and transferred to C on January 5. Give entries on the books of $\mathrm{A}, \mathrm{B}$, and C .
2. Give entries on the books of $\mathrm{A}, \mathrm{B}$, and C at the time of payment, assuming that B pays C .
3. What entries are necessary, assuming that $B$ refuses to pay and $A$ pays C?
4. On February 1, 1922, Mr. Clark, of Chicago, purchases the following items from the Central Furniture Company, of Grand Rapids, Mich., on time draft, 30 days after date:

| 1 | Desk | @ |
| :--- | :--- | ---: |
| 2 | $\$ 98.50$ |  |
| 2 | Chairs | 18.50 |
| 3 | Filing cases | @ |
| 6 | 25.00 |  |
|  | Desk lamps | 9.00 |

Set up the draft as it would appear after he has accepted it on February 3. What is this draft called after he accepts it?
5. On February 5 the Central Furniture Company discounted the draft at 6 per cent with the First National Bank.

How much cash did the Central Furniture Company receive?
Give entries on the books of the Central Furniture Company at time of discount.
6. State what kind of business papers would be used for the following transactions, and in what books of original entry the transactions would be recorded. Assume that your business is located in Chicago.
(a) Borrowed $\$ 5,000.00$ from bank.
(b) Received $\$ 400.00$ note from customer.
(c) Paid $\$ 1,000.00$ note to C. Walters, with 3 months' interest at 6 per cent. Mr. Walters lives in San Francisco.
(d) Received payment from F. Jones in settlement of an open account. The balance in his personal account, as it appears in the customers' ledger, stands at $\$ 412.00$, and a 2 per cent cash discount is allowed for prompt payment.
(e) You have received a bank draft for $\$ 72.00$ from S. Goldman, in payment of his account. You decide to use the same draft in paying your account with the Western Electric Company.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

Assignment 13
AUXILIARY CASH RECORDS

IAM thoroly convinced that accountancy, a comparatively new profession, is the least crowded of all the professions, and that it offers a substantial reward for those who are qualified.

DOUGLAS WILSON<br>Chairman, State Board of Examiners in Accountancy, Montana

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

> 1. The Balance Sheet
> 2. The Profit and Loss Statement
> 3. The General Ledger
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> 5. The Journal
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> 8. Merchandise Records-The Purchase and Sales Journals
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> 11. Promissory Notes
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> 19. Partnership Accounting-Dissolution Problems-Joint Ventures
> 20. Corporation Accounting-Formation-Operation
> 21. Corporation Accounting--Reorganizations-Mergers
> 22. The Voucher System
> 23. Factory Accounting-Manufacturing Statement
> 24. Factory Accounting-Perpetual Inventory-Overhead
> Distribution
> 25. Classification of Accounts
> 26. Single Entry
> 27. Accounting for Nontrading Concerns
> 28. Agency Accounts-Branches-Consignments
> 29. Comparative Statements
> 30. Analyses of Financial Statements-General Review

## AUXILIARY CASH RECORDS

## PETTY CASH-BANK RECONCILIATION STATEMENT

In your study of accounting thus far, you have seen how accounting records are expanded so as to meet the needs of a growing business. For example, the journal is broken up, the ledger is subdivided, and financial statements are expanded. The principle that underlies all this expansion is the principle of classification.

It is this same principle that underlies the expansion of the cash records discussed in this assignment. In any business, large or small, the main cash records, as you know, are the cash book and the Cash Account. There are, however, other papers and records on which some of the cash transactions are recorded. These papers and books are called auxiliary records, because they serve to collect details, which are later summarized in the cash book and the Cash Account. Briefly stated, these auxiliary cash records help to make the main records more complete.

The Petty Cash Fund. Such auxiliary cash records are especially valuable when a business has several cash funds. Most business houses have numerous small disbursements, such as postage, car fare, telegraph, freight, and express expenses, etc. To issue a check for each of such items would obviously require considerable extra work and time. Business men therefore find it convenient to set aside out of the general cash a special cash fund for these small payments.

Whenever a separate fund is kept for small payments, a special cash book is also used, called the Petty Cash book. It is so called because only small or "petty" cash transactions are recorded in it.

The petty cash book then bears the same relation to the small fund that the general cash book bears to the general cash fund. The general fund is usually kept in a bank or general cash drawer or both. The petty cash is usually kept in a petty cash drawer in the office, entirely separate from the general cash, and in the larger concerns the petty cash fund is placed in the custody of a petty cashier.

Form of Petty Cash Book. The Petty Cash book is usually ruled somewhat similar to the one in Figure 1. The use of special columns facilitates the distribution of charges to the various accounts affected, as the sorting of the items is done largely at the time of making the entry.

Handling the Petty Cash Fund. The Petty Cash fund may be handled in one of three ways:
I. It may be reimbursed from time to time with an amount equal to the amount spent out of it since its last reimbursement. This is called the "imprest" system, and is considered far more desirable than any other method for meeting petty payments.


The Petty Cash Book
Figure 1. This petty cash book contains several typical transactions of a minor nature. Note how the amounts are distributed in special columns. At the end of March these columns are added, and the totals can be posted, with a great saving of time.
2. It may be reimbursed by round amounts of sufficient size to meet the ordinary demands made upon it.
3. It may be reimbursed for any amount at any time, regardless of whether or not the fund is nearly exhausted. This last method is very undesirable and causes much waste of time in checking or balancing the cash funds.

## HOW IMPREST SYSTEM OPERATES

1. When Fund Is Established. The person in charge of the petty cash fund receives a check from the general fund for a "round" amount as $\$ 25$, $\$ 50, \$ 100, \$ 500$, or other amount, depending on the requirements of the business. If possible, the fund should be sufficient to meet all petty cash expenditures for a period of at least two weeks on the average. In the general cash book, disbursement side, an entry is made for the check so issued, charging Imprest Cash Fund, Petty Cash, or the petty cashier himself. In the latter case, the separate account opened in the general ledger should not be mingled with any other debit or credit to the party in question. The check itself is made payable to Petty Cash or to X for Petty Cash.

The petty cash clerk, upon receipt of such check, will make an entry in his petty cash book to show the amount received. As payments are made from the petty cash, receipts or vouchers are put into the drawer for the amounts of such payments. At any time, then, one should be able to find in the petty cash drawer the total original amount put in. Such amount, however, would usually consist in part of petty cash receipts and in part of money. This is one of the advantages of the imprest system
from an auditing point of view. Appropriate entries for all disbursements should be made in the petty cash book.
2. When Fund Is Reimbursed. When the custodian of the fund finds the amount so small that it will meet only two or three more days' payments, he should place his cash receipts or vouchers in order, balance his petty cash book, and summarize the receipts on a sheet of paper for filing purposes. This list and the vouchers should be presented to the financial officer or general cashier, who will issue a check for the amount of the disbursements shown on the list. The proceeds of this check are placed in the petty cash drawer, again restoring the amount of money in it to the original $\$ 25, \$ 50, \$ 100$, or $\$ 500$, as the case might be. The petty cash vouchers are filed away with the list and serve as a complete voucher for the entry in the general cash book.

The petty cash book may or may not be used as a posting medium. If it is not so used, posting may be made either from the journal or general cash book.

Postings from Petty Cash Book. In the simple form of the petty cash book, it is necessary to make a summary of expenditures each time the book is balanced. This summary is recorded below the rulings and is made to correspond with the account titles for which expenditures are incurred, as postage, stationery, freight and express, or other account titles used in the general ledger.

These totals are then posted as debits to the respective ledger accounts. No account is credited from the petty cash book. The offsetting credit is to Cash Account as expressed in the general cash book.

In the example below, $\$ 88.20$ is posted to the debit side of several expense accounts from the petty cash book, but no credit is posted from the same book. On the other hand, $\$ 88.20$ is credited to (General) Cash Account from the cash book, but no debit is posted from the same book to offset it. The net result, of course, is that the several expense accounts are debited and General Cash Account credited with the amount of the petty expenditures.

Postings from Journal. When postings are made from the journal instead of from the petty cash book, the entry is made in the journal at the time the petty receipts are presented for reimbursement. The entry to be made is reproduced in Figure 2.

In addition to the entry made in the journal, an entry is made in the general cash book when the check is issued to reimburse the fund. Such entry is made almost simultaneously with the one in the journal and expresses this debit and credit:

Petty Cash Fund \$88.20
Cash (General)
$\$ 88.20$
The net result of the two entries is a debit to the several expense accounts and a credit to Cash, since the debit and credit to the Petty Cash

Account cancel each other. It should be observed that this is the same result which was obtained when the posting was made from the petty cash book.

JOURNAL

| DATE | L.F. | EXPLANATION | DEBITS | CREDITS |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Postage <br> Stationery <br> Freight and Express <br> Telephone and Telegraph <br> Selling Expense <br> Petty Cash Fund | $\begin{array}{c\|c} \$ 5 & 00 \\ 15 & 30 \\ 40 & 65 \\ 13 & 90 \\ 13 & 35 \end{array}$ | \$88 20 |

Journal Entries for Petty Cash Items
Figure 2. By entering these transactions in the general journal as shown in Figure 2, we save space in the cash book, which is quite desirable. The summary entry in the cash book then requires but little space. Thus you can see what we mean when we say that the petty cash book is an auxiliary cash record. It contains the details that appear later as a total in the general cash book.

Postings from Cash Book. A third method of posting petty cash expenditures to the accounts is accomplished by expressing the necessary debits to the various accounts in the general cash book at the time of making the entry for the reimbursing check. Under such conditions, the entry as made on the cash payments page of the cash book would express these debits and credits. See Figure 3.

## CASH DISBURSEMENTS

| DATE | L.F. | ACCOUNT TO BE DEBITED | DETAIL |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Postage | \$ 5 | 00 |  |  |
|  |  | Stationery | 15 | 30 |  |  |
|  |  | Freight and Express | 40 | 65 |  |  |
|  |  | Telephone and Telegraph | 13 | 90 |  |  |
|  |  | Selling Expense | 13 | 35 |  |  |
|  |  | Cash (General) | 1 |  | \$88 | 20 |

## Petty Cash Items Posted from Cash Book

Figure 3. This method does away with the general journal entry, but it brings into the cash book a large number of detail transactions. In other words they are duplicates of the entries in the Petty Cash book. This method is different from that shown in Figure 2 , where only the total is brought into the cash book.

Petty Cash Balance Sheet. In preparing a balance sheet, when petty cash is kept under the imprest system, it is customary to disregard the condition of the petty cash fund at the date of the balance sheet and show as an asset the amount charged in the ledger as imprest, or petty cash fund. Such procedure, however, is not theoretically correct unless the petty fund is reimbursed immediately before the Balance Sheet is made. At the time of an annual or other special balance sheet, therefore, the petty cash fund should be renewed, for two reasons:

1. To show the true amount of assets in the form of cash.
2. To show the correct amount and distribution of expenses.

Other Uses of Imprest System. The principle of the imprest system can be applied on a larger scale in providing working funds for branch houses, agents, or financial officers delegated to the performance of specific duties. Thus the fund of a branch agent might be created in the same way and reimbursed according to the same plan, even tho the amount might be as high as $\$ 50,000$ or $\$ 100,000$, a large part of it being paid out by check signed only by the agent instead of being paid out of a petty cash drawer.

Other Petty Cash Systems. If the imprest system is not used, the only other important method of handling petty cash is that in which reimbursements are made from time to time in round amounts of sufficient size to keep the fund at a reasonable amount. Under this plan the creation of the fund for the first time is accomplished, as in the imprest system, by issuing a check and making similar entries and postings. The word "imprest," however, should not appear in the account title. In its stead "Petty Cash" is used.

The main point of difference between this and the imprest method lies in the conditions accompanying reimbursement. Under this plan, as the petty cash becomes nearly exhausted, a check is issued in its favor for some reasonable amount, in multiples of $\$ 25$ or $\$ 50$, regardless of what the expenditures may have been. The new check does not necessarily bring the balance of petty cash back to its original amount.

Disadvantages of This Method. With this plan in operation, the keeper of the petty cash book must record all cash received by him, as well as all cash disbursed, and balance the book carefully in order to determine whether or not the amount of cash in the drawer is correct. Likewise, it is more tedious for the auditor to verify the petty cash when it is kept under this method. Also, the entry in the general accounts must be such at the time of reimbursement as to show in the Petty Cash Account the total expenditures and the amount put into the fund from time to time.

Checks Exchanged for Currency. A cashier or bookkeeper is occasionally called on to record transactions in which the business receives currency in exchange for its check or in which it receives the check from some one else in exchange for currency.

1. Cash Received for Check. Assume that your business has an imprest system, and that you issue a check and receive cash for it. How will you make the entry? It is obvious that you cannot put the cash in the imprest
fund, since this fund must remain at the same amount. It is suggested that the entry be made in the general cash book as follows:

In the general cash payments book, express a credit to General Cash (or Bank) and debit nothing, but write in the space reserved for explanation "See contra, exchange check," which means that on the other side of the cash book the same amount appears as a debit for cash received. In case of the latter entry, of course, Cash is debited but nothing is credited. The explanation is made here also referring to the contra entry to be found among the cash payments. These entries of course balance each other. The effect would be the same if no entry is made at all. It is better, however, to have the record of the transaction.

Now assume that the imprest system is not used but that you have merely a Petty Cash fund, which can be reimbursed at any time by any amount, then, it may be placed in the petty cash drawer and a debit made to Petty Cash account when making the entry for the check in the general cash book, disbursement side.
2. Cash Is Paid Out for Check. When the business receives a check from someone else in exchange for cash (when it cashes someone's check) no entry is required. It may be cashed out of petty cash or general cash not yet deposited. If cashed out of petty cash, the check may be put into general cash before banking hours and its equivalent in currency placed in the petty cash drawer. If cashed out of general cash, it is merely deposited in place of the currency which is displaced.

Entries for Postage Stamps Received. When postage stamps are received from customers in payment of small items, entry for the transaction may be made in one of two ways:

1. In the journal, expressing a debit to Postage and a credit to the customer (or sales).
2. In the general cash book, Receipts side expressing a debit to Cash and a credit to the customer (or sales).

When the latter entry is made, the postage stamps can be placed in the petty cash drawer, and an equal amount of cash taken out and placed in the general cash drawer. Then an entry is made in the petty cash book expressing a credit to Petty Cash and a debit to Postage.

Check Stubs, Pads, and Registers. Check stubs are used for recording the essential facts about each check issued and detached, and also for recording deposits made in the bank on which the checks are drawn.

Check pads are checks in simple or voucher-check form put up in pad form without any stubs attached. A check register is a memorandum book in which the amount, number, date, and payee of each check is recorded.

When checks are used in the stub form, there is little or no use for check pads or check registers. Check stubs show all of the essential facts regarding the check that are necessary in transferring the item to the cash disbursements book. They also show the balance in the bank at any time, as all deposits are added and all checks issued are deducted.

Check Pads Inadequate. As a record or memorandum for future use, the check pad is inadequate, because when a check is written, it is removed from the pad, leaving no specific evidence of its use. For this reason the check register is often used together with the checks that are put up in pad form. The check register in such cases shows the same information that might otherwise be recorded on the check stubs. The date, amount, number, and name of the payee are recorded as each check is issued. As in the case of the check stubs, great care is required to avoid the possibility of a check leaving the office without having a record made of its issue. The check register may also be designed to show the deposits as made and the daily balance of cash in the bank.

Check Register Sometimes Unnecessary. It is not always necessary to have a check register when checks are used in pad form, since the checks may be entered directly in the cash disbursements book. In either case every precaution should be taken to make entries for every check issued. The checks should be numbered by the printer, and every number accounted for in the check register or cash book.

Check Register As a Posting Medium. The check register may, however, be used as a posting medium. When it is so used, the various accounts to be debited are shown clearly in the proper space. The total of checks issued is then transferred daily to the general cash book, if the latter is used. If the check register is not used as a posting medium, it is necessary to transfer items to the cash book in a way similar to the transfer of items from check stubs. In some concerns the Check Register takes the place of a Cash Book.
A.common form of check register contains columns designated as follows:

| Date | Check No. | Payee | Explanation | Amount of Checy | Deposit |  | Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Date | Amount |  |
|  |  |  |  |  |  |  |  |

The Check Register
Figure 4. Here we have a book that can be used as an auxiliary record to the cash book. Every check issued and every deposit made is recorded and then these items are added together at the end of the month. The totals are posted to the cash book.
The explanation column is omitted if the book is not used as a posting medium. Deposit and balance columns may be omitted, also. A separate check register should be used for each bank.

Check Register in a Large Business. The check register is not a practical book in the average business. Its principal value lies in its use by large concerns to permit a greater division of labor. An office boy can write checks and enter them in the check register while he might not be entrusted with the use of the cash book.

Bank Pass Book. Altho the bank pass book is not a record book in which the bookkeeper or cashier of a business makes entries, it nevertheless bears an important relationship to his work. The bank teller records
deposits in the pass book from time to time as they are made. The pass book should be balanced at the close of each month by the bank and returned to the depositor with the checks that have been "cashed" by the bank during the period. The balance thus recorded should be reconciled with the balance in the bank as shown by the books of the business in question.

In many banks it has become a common practice to send monthly statements to each of the larger business houses, and return at the same time the canceled (cashed) checks. These statements are often copies of the bank's loose-leaf ledger account with the depositor, showing each charge and credit from day to day. Others show only the total of all charges for each day. In either case, the balance at the beginning, the checks issued, the amounts deposited, and the balance at the close of the period are plainly presented.

Bank Certificate for Auditors. A bank certificate is often sent to auditors and accountants upon request of officers of the concern whose account with the bank is to be verified. The bank certificate, used principaliy in auditing, supplements but does not take the place of the bank statement or pass book balance. It is an independent letter signed by an officer of the bank stating the amount of the balance in the checking account of the business under review at a given date. The main point for the auditor to consider is that the balance of the bank statement and certificate should correspond for a specified date.

Reconciling the Bank Balance. When the bookkeeper or accountant has received and recorded for reference the bank balance, as shown by the bank pass book, the bank statement, or certificate, he finds in most cases that the balance thus presented does not agree with the balance which the books of his business show as being on deposit in the bank.

In order to find what causes this difference, it is necessary to perform a certain amount of checking. This checking, with its accompanying tabulation, is ordinarily called "reconciling the bank balance," or "reconciling the bank."

Strictly speaking, a bank reconciliation does not attempt to explain the differences due to errors on the part of the bookkeeper of the business in question. The bank reconciliation statement as prepared by the bookkeeper assumes that both the balance as shown by the books of the business and the balance as shown by the books of the bank are correct within themselves. The reconciliation statement serves its purpose by showing in detail what the legitimate difference is, and how it happened that both the bank and the business kept its records correctly but still showed different results in so comparatively simple an account.

On the other hand, the term "bank reconciliation statement" may often be used to include also the differences due to clerical errors as well as other differences. This is due to the fact that it is a place for temporarily rcording all differences until errors can be corrected.

Cause of Legitimate Differences. The legitimate differences mentioned are usually caused by outstanding checks, that is, checks not yet
cashed by those receiving them, deposits in transit-namely, currency or checks received by the bank after it has made out the statement, or interest and collection charges entered by the bank but not by the business. Such interest and collection charges are not yet entered on the books of the business because it does not receive notice that such charges have been made until the bank statement is received, accompanied by the canceled checks and sundry charge and credit tickets. Other elements, that might contribute to the difference are collection of notes or drafts, protested notes or drafts, checks received from customers, which are deposited and then returned "N S F" (not sufficient funds), interest coupons collected, or other financial transactions handled by the bank in the interests of the business, formal notification of which is not received until the bank statement brings this information with the accompanying tickets and checks.

## RECONCILING BANK BAIANCE WITH BALANCE

On December 31, 1921, the F. W. Wilson Manufacturing Company receives the monthly statement from the First National Bank. The statement shows a balance of cash of $\$ 28,495.70$.

The balance as per check stubs amounts to $\$ 23,079.15$. How is the difference between the two balances to be reconciled? How did the accountant proceed?

1. First of all he sorted all checks, returned by the bank, in numerical order.
2. He then compared these checks with the check stubs and noted any differences. He also compared the amount of each check issued, with the list of checks on the Statement to discover any outstanding checks.
3. He compared the beginning balance on the bank statement of the month with the balance shown as of the last day of the preceding month on the statement for that month. This he did to catch any errors by the bank in transcribing this balance from their ledger to the statement.
4. He compared all deposits as per bank statement with all deposits shown on the check stubs and noted any differences. Here he may find credits by the bank, for notes collected, interest collected, interest allowed on average balances, or similar items.
5. He listed all debit tickets by the bank, such as collection charges and checks returned "N S F."

Form of Reconciliation Statement. After the accountant listed these facts and analyzed them, if not in detail as we have suggested, at least mentally, he proceeded to make the reconciliation statement. In doing this he could follow either of two methods:

1. Begin with the bank balance and work back to the balance as per check stubs.
2. Begin with the balance as per check stubs and work toward the bank statement balance.

When the accountant for the F. W. Wilson Manufacturing Company made the investigation outlined here, he found the facts as shown in Figure 5.

```
CHECKS OUTSTANDING:
```


ANALYSIS OF THE FACTS
Deposit of Dec. 31 per check stubs,
not credited by the bank before
the close of business on that day $\mathbb{\$} 398.76$
Note of L. F. Lewis Co., with in-
terest collected by the bank for
our account on Dec. 31:
Pace of note
$\$ 500.00$
Interest. 4 mos. @ 6\% 10.00
$\$ 510.00$

The bank has reduced our balance and made the following debits as shown by the charge tickets:

```
Collection charges for
    December . . . . . . $ 5.50
Check of Howard & Hills
    included in deposit of
    Dec. 29 returned
    "N S F" $ 525.00
```

                            \$ 530.50
    Items which we have entered as credits on our books, but the bank has not yet debited.

We have debited this amount on our books, but the bank has not yet made the credit.

The bank has entered these items as credits on its books, but we have not yet entered the debits, since we didn't know until the statement was received that the bank had collected the note and interest.

Since we owe the bank for these items, the bank has entered them as debits to our account. We did not know about the collection charges until we received the bank statement; but we would ordinarily know about the NSF check. Banks, in practice, notify their customers immediately if any deposited check is NSF. This is done in conformity with certain legal requirements, as well as to prevent an overdraft by the depositor.

## Analysis of Facts Preparatory to Reconciliation

Figure 5. Notice how the accountant listed the facts that require consideration before reconciliation can be made. These facts, however, must be analyzed, as shown in the squares opposite, before he can prepare the Reconciliation Statement.

As a matter of fact he used method 1 and set up the following statement. If he had used method 2, he would have merely reversed the process of additions and subtractions. Either way is good and used in accounting practice.
RECONCILIATION STATEMENT, FIRST NATIONAL BANK,DEC. 31, 1921
Balance as per bank statement, Dec. 31, 1921 ..... $\$ 28,495.70$
Add: Collection charges for Dec. ..... \$ 5.50 Check of Howard \& Hills included in deposit of Dec. 29 returned "N S F"

$$
\begin{equation*}
525.00 \quad 530.50 \tag{1}
\end{equation*}
$$

$$
\$ 29,026.20
$$

Deduct: Note of L. E. Lewis Co. with interest collected by the bank for our account on Dec. 31.
Face of note . . . . . . . . . . . . . . . . . . . . . . $\$ 500.00$Interest, 4 mos. @ $6 \%$. . . . . . . . . . . . . . . . . 10.00510.00$\$ 28,516.20$398.76
Add: Deposit of Dec. 31 per check stubs, not credited by the bank before the close of business that day
398.76
Deduct: Checks outstanding,
No. 1017 James Black
\$ 8.20
1031 Griswold \& Co. 79.60
1032 Jas. Wise \& Son 748.01
1033 Real Estate Mfg. Co. . . . . . . . . . . . . . .5,000.00
5,835.81
Balance as per check stubs, Dec. 31, 1921. ...........

## The Bank Reconciliation Statement

Figure 6. In this statement we start with the balance as it appears on the books of the bank, and work down to the balance as it appears on our check stubs. In answering the self-test questions on the details of this statement, ask yourself at each step what has the bank done in order to arrive at this balance-that we have not done.
You will find it valuable to test your understanding of the statement in Figure 5 by considering the following questions. It is, of course, not required that answers be sent to the University.

What is the real reason for adding $\$ 530.50$ ? Why not subtract this amount?

Why is $\$ 510.00$ deducted, $\$ 398.76$ added, etc.?
You can answer these questions correctly if you understand clearly what a reconciliation statement really is. It is an explanation of the DIFFERENCE that exists between the bank's balance and the balance as shown on the books of the business. Both the bank and the business have kept accurate records; but a difference exists because the bank has entered some transactions on its books that HAVE NOT YET BEEN ENTERED ON THE BOOKS OF THE BUSINESS; likewise the business has issued checks and deposited money, NOT YET ENTERED ON THE BANK'S BOOKS.

In other words, the F. W. Wilson Manufacturing Company must bring the transactions on its books which have been omitted.

Entries Necessary on Business Books. The entries to adjust items (1) and (2) are made as soon as possible after the completion of the reconciliation statement. It is obvious in the case of item (1) that the accountant must make an entry crediting the bank for $\$ 530.50$. In the case of item (2) he must make an entry debiting the bank for $\$ 510.00$.

The entries will be as follows:
To adjust item (1):

$$
\begin{aligned}
& \text { Collection Charges (or Expense) . . . . } \$ 5.50 \\
& \text { Customers' Ledger Howard \& Hills } 525.00 \\
& \text { First National Bank or cash } . . .
\end{aligned}
$$

$\$ 530.50$
(Give explanation as in reconciliation statement.)
To adjust item (2):
First National Bank (or Cash) . . . . . . .. $\$ 510.00$
Notes Receivable . . . . . .
I
$\begin{array}{lr}\text { Notes Receivable . . . . . . . . . } & \$ 500.00 \\ \text { Interest . . . . . . . . . . . . } \\ 10.00\end{array}$
(Give explanation as in reconciliation statement.)
Apparently, Howard \& Hills issued a check for $\$ 525.00$, but when the First National Bank presented it to the bank on which it was drawn, the latter refused to honor it because the balance in the checking account of Howard \& Hills was not sufficient to meet the check in full. Accordingly no part of it was paid. At the time the check was received, we credited Howard \& Hills and debited the Bank (or Cash) ; the entry must be reversed, however, when it is found that what we received from Howard \& Hills turned out to be of no value.

Entries Made Later by Bank for Items 3 and 4. After entries are made by the Wilson Manufacturing Company for Items 1 and 2 the amounts which they represent are checked off in the reconciliation statement. The other items (3 and 4) are left unchecked until it is known that the bank has recorded the deposit and cashed the outstanding checks, because the bank is the party to make entries for them, thus:

Item 3 adjusts itself automatically when the following entry is made on Jan. 2, 1922:

Cash . . . . . . . . . . . . . . . . . . . . $\$ 398.76$
F. W. Wilson Manufacturing Co
$\$ 398.76$
(To record deposit of Dec. 31, 1921, by F. W. Wilson Manufacturing Co.
Entry for item 4 is made whenever the checks are cashed and turned into the bank. After they have all been cashed the bank's books will be affected thus:

> F. W. Wilson Manufacturing Co. Cash . . . .
$\$ 5,835.81$
$\$ 5,835.81$
(For payment of checks issued by
F. W. Wilson Manufacturing Co.)

NOTE: These entries, of course, will not be journal entries but will be entered in the appropriate bank record. They are shown in journal entry form here in order to show clearly the accounts affected.

As soon as we find out that the bank has made such entries, we check off Items 3 and 4. This information, however, is usually not received until the end of the succeeding month, when the next statement is received from the bank accompanied by the checks cashed during that period. Accordingly, a reconciliation statement should be carefully. preserved until the one for the following month has been made. Even then, it is best to file such statements away for future reference.

What Bank Statement Shows, On the bank statement for January, received by the accountant soon after January 31, he will undoubtedly find the $\$ 398.76$ deposit credited by the bank. This having been shown on the December reconciliation statement as Item 3 ("We have debited; bank has not credited"). Item 3 can be checked off on the December reconciliation statement as soon as it is checked off on the January bank statement.

This leaves only Item 4 of the December reconciliation statement unchecked. Since Item 4 is composed of amounts which "We have credited; bank has not debited," it is necessary to determine whether the bank has debited them to our account during January. This can be easily determined by finding out whether checks numbered 1017, 1031, 1032, and 1033 have been returned by the bank with the January statement. If all four checks, canceled by the bank, are found among those returned at the end of January, all the amounts constituting Item 4 of the December reconciliation statement can be checked off, thus completing the active service of the latter statement.

If it is found that any of the four checks outstanding at the end of December is still outstanding at the end of January, such check or checks must be carried into the January reconciliation statement, to show that the "bank has not (yet) debited." Assume, for example, that check No. 1017 had not been cashed by the payee, James Black, and therefore it had not been returned canceled by the bank, the reconciliation statement of January 31 would contain this item as the first one among its checks outstanding. If there happened to be any other items of whatever nature on the December reconciliation statement not cleared up or accounted for in January, they would be carried forward to the January reconciliation statement. Thus it is necessary to refer only to the last preceding one in making up any new reconciliation statement.

Next Step to Verify Cash Balance. Reconciling the bank balance is part of the process of verifying the catsh balance.

Now that the accountant has reconciled the bank, he verifies his cash book balance. He finds his cash book has a debit balance of $\$ 25,316.29$. He knows from his reconciliation statement that of this amount, $\$ 23,079.15$ is in the bank. Where is the rest?

He receives from the clerk in charge of the cash drawer an actual count of cash in drawer on December 31, 1921. This amounts to $\$ 2,237.14$. The verification of the cash book balance will therefore appear as follows:

| Balance as per cash book, Dec. 31, 1921. Composed of: |  | \$25,316.29 |
| :---: | :---: | :---: |
| Balance on deposit in First National Bank as |  |  |
| per check stubs, reconciled with bank state- |  |  |
| ment as of Dec. 31, 1921... | \$23,079.15 |  |
| Counted in cash drawer | 2,237.14 | 25,316.29 |

Verifying the additions and subtractions on the check stubs is part of the work of verifying the bash book balance rather than reconciling the bank. In verifying the cash book balance, any errors of this nature on the check stubs should be corrected. Then, in reconciling the bank, the corrected figures of the check stubs would be used. In this way there would be no necessity for including clerical errors on the stubs as part of the reconciliation statement. This applies more to the cashier and bookkeeper than to the accountant and auditor. The latter would include all errors or differences in his reconciliation statement, leaving the corrections to be made by the person ordinarily responsible for the keeping of the records.

Cash Over and Short Book. Theoretically, all cashiers should balance their cash at least once every day. Practically, they balance it as nearly as they can; that is, they account for all the cash unless there is some mistake either in the cash record or in the cash itself. Any error found in the record is usually corrected at once. Any error in making change or in receiving or paying cash may be corrected if one knows in what transaction the error was made. There are few, if any, infallible cashiers. Accordingly, the cash count does not always correspond with the amount that should be on hand as per the cash book. As a result, we have a special book, the Cash Over and Short Book, in which such differences are recorded.

Accordingly a memorandum is made in the cash over and short book for any difference in cash. Such a book serves as a memorandum to the cashier and is valuable for subsequent scrutiny by the auditor. It is not a posting medium, nor does it follow any standard form. The essential points to be recorded in it in case of a difference are the date and hour of the count, the amount over or short at this count, the aggregate amount over or short on all counts (since writing off the difference) to date of last balancing, and the cumulative or aggregate amount over or short to date. The form on which the count of cash is recorded is usually filed away. Such form should be available for reference at any time.

The cash over and short memorandum book takes the place of the Cash Over and Short Account. When the account is used, an entry is made affecting the general ledger accounts-Cash Account and Cash Over and Short Account-after each day in which an overage or shortage appears in the cash count. If the cash on hand is less than the amount shown by the cash book, there is said to be a shortage, or the cash checks short. An entry is made in the cash book, then, expressing this fact:

> Cash Over and Short. . . . . . . . $\$ 5.00$ Cash. . . . . . . . . $\$ 5.00$

When cash is over the entry is:
Cash . . . . . . . . . . . . . . . $\$ 6.00$
Caeh Over and Short . . . . . $\$ 6.00$
These entries assume that the cash was short $\$ 5$ at one time and was over \$6 at another.

Cash Over and Short Account Is Nominal. A debit balance of the Cash Over and Short Account at the time of closing the books represents a loss,
and a credit balance represents a gain. It is therefore a nominal account and is closed at least once a year into Miscellaneous Office Expense, or directly into Profit and Loss Account.

If a large shortage in cash is caused by the defalcation of the cashier, such a loss is considered a capital loss. As such it would be charged to an account with the Surety Company, assuming that the cashier is bonded, as is usually required.

## THE MAIN POINTS OF ASSIGNMENT 13

Briefly stated, this assignment emphasizes the need for additional records and papers, in which details are entered, in order that totals can be brought into the main records, such as the Cash book and the Cash Account.

The importance of reconciling the bank's statement is also emphasized. The illustrative problem shows you exactly how to proceed in reconciling a bank statement.

With these two main principles thoroly mastered, take up the problem work of this Assignment. The problems are situations such as you as an accountant will find in actual business. Send in the solutions for all the problems.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 13

1. Assume that you are in charge of the general cash and that an imprest system is started in your office on January 2, 1922. The amount placed in the imprest fund is $\$ 200.00$.

Show by journal entry what debit and credit is made at the time of starting this fund.
2. During the month of January the following amounts are paid out by the petty cashier and recorded in the Petty Cash Book:
Postage ..... $\$ 22.00$
Telegraph ..... 5.25
Carfare ..... 1.70
Washing Windows ..... 12.40
Printing of Letterheads. ..... 25.00
Pencils and Pens ..... 3.00
New Typewriter ..... 50.00
Telephone Rental ..... 6.25

On January 31, the petty cashier calls upon you to reimburse the imprest fund.
(a) What would you require of the petty cashier before you would issue a check?
(b) When you issue the check, what entries would you make in the general Cash Book?
(c) To what accounts will each of the above transactions be posted? (The postings in this case are made from the cash book.)
3. The Andover Furniture Company had a petty cash fund, which was reimbursed from time to time with any amount, regardless of disbursements. On December 31, 1921, a representative of the accounting firm, auditing the books, advised the company to install the imprest system. The company followed his advice.

What were some of the reasons probably advanced by this representative in advising the change?
4. On January 31, 1922, when the accountant of the Andover Furniture Company made up the balance sheet, he included under cash the original amount of the Imprest Fund, namely $\$ 300.00$, in the balance sheet.

What objections would you offer to such procedure, and what method would you suggest as being better?
5. On January 31, 1922, the accountant for the Philips \& Clark Mercantile Company verified his cash book balance and reconciled his checking account. The company does not have a petty cash fund, but makes both check and currency payments from the general cash fund; hence it does not deposit all cash received.

The cash book columns on January 31, at the close of business, show total debits of $\$ 2,160.38$, which includes the balance of $\$ 300.00$ at the
beginning of the month, and total credits to cash of $\$ 1,328.48$. His check stubs show a balance of $\$ 820.31$, and there is $\$ 11.59$ counted in the cash drawer.

The bank statement of January 31 shows a balance of $\$ 851.69$. In comparing the canceled checks returned by the bank with the check stubs it is found that check No. 198 for $\$ 25$ and check No. 201 for $\$ 6.38$, issued to T. Somers and John Walters, respectively, have not been cashed by the bank.
(a) Make a bank reconciliation statement as of January 31, 1922.
(b) Make a statement verifying the cash book balance.
6. The bank statement of the Pure Food Grocery Co. for the month of December, 1921, shows the following items that require reconciliation and adjustment:

1. Collection charges for December ..... \$ 6.10
2. 60-day note collected for Pure Food Co. from C. B. Haynes ..... 100.00
3. Interest on this note collected ..... 1.00
4. Check of T. B. Hampton included in deposit of Dec. 31 returned "N S F" ..... 26.75

Show the journal entries which will be necessary to bring out these facts on the books of the Pure Food Grocery Co.
7. In verifying the Cash balance for the Pure Food Grocery Co. on December 31, 1921, the accountant discovers that the cash on hand is $\$ 9.19$ less than the amount shown by the Cash book. The cash over and short account has a credit balance of $\$ 8.00$.
(a) Show the entry to be made in the Cash book for the shortage of \$9.19.
(b) What will be the balance of the Cash Over and Short Account, after this entry has been posted? Will the balance be on the credit or debit side?

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 14 <br> SUNDRY AUXILIARY BOOKS AND BUSINESS RECORDS

ALL students of accounting should make it a point to get practical experience with firms of unquestionable reputation for a period of at least four years, before branching out on their own account, because: All the theoretical work is of little value unless it is backed up by hard knocks from practical experience.
H. Cuthbert

President, Arizona State Board of Accountancy

# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

```
    1. The Balance Sheet
    2. The Profit and Loss Statement
    3. The General Ledger
    4. Closing the Ledger
    5. The Journal
    6. Closing the Ledger by Journal Entry
    7. The Cash Journal
    8. Merchandise Records-The Purchase and Sales Journals
    9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreclation and Uncollectable Accounts
18. Partnership Accounting--Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint
    Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting--Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Overhead
        Distribution
    25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts--Branches-Consignments
29. Comparative Statements
30. Analyses of Financial Statements-General Review
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## SUNDRY AUXILIARY BOOKS AND BUSINESS RECORDS

Detailed Records Essential to Good Accounting System. A good accounting system is made up of more than a ledger, a journal, cash book, sales book, and purchase book. It includes also numerous auxiliary books and records, as well as miscellaneous business documents. For example, in the preceding assignment we found that certain auxiliary records help to make the cash book and the cash account more complete. The principal books of original entry and the ledger form only the floor of the pit into which a great variety of business transactions are cast for analysis, classification, and condensation.

Business transactions are usually reduced to writing as soon as possible after they occur. Business forms especially prepared for this purpose are used. Many of these preliminary or original records are then classified in an auxiliary book, from which aggregate amounts are derived for use in expressing debits and credits in some book used as a posting medium.

Purpose of Auxiliary Books. These books therefore serve as intermediate records between the business papers and the books of original entry.

Some auxiliary books and forms, however, have no direct connection with posting mediums, but are merely statistical in nature. Such records serve as a check or occasional test of the accuracy of another record.

Some of the more commonly known auxiliary books in business are the insurance register, car-record book, pay-roll book, inventory book, and trial-balance book. Other auxiliary books may of course be found in various lines of business, depending on the nature and volume of the transactions. The manufacturing, insurance, banking, public utilities, and other specialized businesses, each has its records for the collection and preliminary tabulation of facts peculiar to the business.

Insurance Register. A columnar book known as the insurance register is used in recording the detail facts about fire, tornado, plate glass, or other forms of property-insurance policies. The facts usually recorded are: date and number of policy; name of issuing company; nature of property insured (frame store building, brick garage, etc.) ; amount of the policy; date of expiration of the policy, and the amount of premiums.

The amount of the premium may also be distributed in special monthly columns to show the amount expiring each month. This distribution is valuable in making monthly adjustments for expired and unexpired insurance. Expired insurance is an expense for the month, while the unexpired portion is an asset. This, however, will be fully explained in a later assignment.

The insurance register usually takes up both pages of the book fur a single entry. Figure 1 shows a simple insurance register, as it appears without the distribution columns.

| Date of Policy | No. | Name of Company | Property Insured | Amount of Policy | Expires | Total Premium |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{ll}1922 \\ \text { Jan. } & 2\end{array}$ | 2243 | Standard | Store | \$6,000.00 | Jan.2-1925 | \$4800 |
| March 15 | 389 | Acme | Warehouse | 5,000.00 | Mar.15-1925 | 2000 |

The Insurance Register
Figure 1.-The Register shown here contains entries for two policies. Note the way entries are made and you will understand the purpose of each column.

The insurance register illustrated in Figure 1 is not a posting medium. It is one of those auxiliary books which is used not only for reference, but which also supplies amounts necessary in making entries in books used as posting mediums.

When this simple insurance register is used, the amount of premiums expiring from month to month must be calculated before making the entry in the journal.

Car Record Book. Business concerns that have railroad switch tracks leading to their plants, warehouses, or yards, or those using near-by team track facilities quite extensively, have need for a car-record book. Such a book is valuable as a reference book for several purposes. It enables the business to identify carload shipments coming in or going out, in order that invoices may be properly approved for payment, or that bills may be duly sent to the parties ordering in carload lots.

Another very useful purpose is that of verifying demurrage or switching bills presented by the railroad companies. For every day or fraction thereof over forty-eight hours that a car is detained, the concern holding such a car is charged at a daily rate of two dollars. This rate is increased after a certain time to five dollars a day. The charge applies either to cars loading or unloading. Before such bills are paid they should be verified with the car-record book, which shows the essential facts relating to the loading or unloading of the cars.

The car-record book need not be an elaborate book. It has little or nothing to do with values. No entries in posting mediums depend on it for their figures. There are a variety of forms which are in use as carrecord books, depending on the volume of the carload business, the number of incoming and outgoing cars, and the nature of the materials carried. For example, concerns handling sand, slag, gravel, coal, and similar commodities have practically no other way of identifying shipments than by the number of the car into which they are loaded. If the purchaser pays the freight, there would be no indication to the shipper of any omission of a car from the car-record book.

As cars are loaded with any of these bulky commodities, a record is made of:

1. The car number and initials.
2. The gross tare and net weight of the car.
3. The name of the party to whom it is to be shipped.
4. The railroad or railroads over which it is routed.

The date of shipment is very important for the purpose of verifying demurrage bills. Likewise, the day should be noted on which the car was placed on the spur or siding available for use. These facts are usually jotted down in the yard book by a superintendent or his assistant, and they are later transcribed into the car-record book kept at the office. Special check marks may be adopted for indicating when a bill was sent to the purchaser for carloads.

Concerns handling commodities that are loaded in cars as distinct pieces, such as furniture, farm implements, etc., are not likely to overlook the billing of the purchases, for there is a specific count necessary in loading the car. The number of pieces loaded is usually designated on the order, which is duly entered and priced without waiting for the car to be weighed. In the case of bulky commodities, the weight of the car is used for billing the customer, as well as for determining the amount of the freight charges.

Special attention is given to the cross references between the car record and the invoice of the commodities when the latter are distinct units. The invoice for a carload shipment should always show the car number. The car-record book of both the shipper and purchaser should show by some abbreviation whether an invoice has been sent or received, respectively.

The column containing car numbers should stand out foremost in the car-record book of the purchaser or seller. These numbers are the most vital part of the record and should be recorded accurately and distinctly. The cars may be listed in any of the following ways: (1) chronologically as received or shipped; (2) by the class of commodity; or (3) by the number of the car. In the latter case, a unique system is in use similar to that of index tabs to a ledger, by which all cars with the last two digits alike are found on the same page. Thus on the pages covered by the tab " 06 " would be found all cars whose numbers end in 06, as 319706, 126206, etc.

Pay-Roll Book or Sheets. One of the most prominent subsidiary or auxiliary records is the pay-roll book, one form of which is illustrated in Figure 2. It is set up so that it can contain the names of employes and the amount of wages or salaries which they are entitled to receive from time to time.

Three ways of keeping records of pay rolls are being used in business:

1. Requiring the signature of each employe, opposite the amount he is paid, on the pay roll itself.
2. Requiring the signature of each employe on a separate receipt only, and not on the pay roll itself.
3. Not requiring any signature or receipt for wages paid.

In any case, the pay-roll book shows the employes' names, the unit rate of pay, and whether they are employed by the hour, day, week, or month. The names are usually grouped by operating departments or according to the nature of the work being done. The office pay roll is usually kept separate from the pay roll of other employes.

When employes are hired by the hour or day, there are usually columns added for the number of hours worked each day. The total number of hours is shown, followed by the rate and total amount of pay for the week.


The Pay-Roll Book
Figure 2.-This pay-roll book contains columns for each day of the week, with a column for the extended totals. In this way an accurate record can be kept for each employe, so that at any time the amount due each employe can be easily determined. Such a book is usually preferred to separate pay-roll sheets: which otherwise may either be lost or misplaced, unless they are carefully filed.
In many concerns employes are numbered, in which case their numbers will appear in front of their respective names on the pay-roll sheet or book. In case separate receipts are used, the numbers must also appear on them. When time clocks are used, with either the rectangular card or dial, the data is transferred to the pay-roll sheet in the same way as if the employes were reported only on the usual daily report of the foreman.

Generally the pay-roll book is one of those auxiliary records used for the summarizing of essential facts preparatory to expressing the result-
ing aggregate in terms of debits and credits in some posting medium. Thus the sorting of the employes by departments enables the bookkeeper to calculate the amount of the wages applicable to each department. The amounts calculated in this way may be clearly indicated in the pay roll. From the record, then, the amounts may be obtained for the purpose of debiting proper expense accounts and crediting Cash, Wages Accrued, Vouchers Payable, or some account to represent the method of procedure in payment. Such debits and credits are expressed in the cash book directly, or in the journal or vouchers-payable register, which will be explained later.

If entries for the pay roll are made in the journal, or if posted directly from the pay-roll book, it is customary to debit the several expense accounts and credit a pay-roll account. The entry in the cash book, made almost simultaneously, is a debit to the Pay-Roll Account and a credit to Cash.

All pay-roll books or sheets should be approved by some responsible officer, manager, or partner before payment.

Inventory Book. Another record which may be kept in book form or on sheets arranged for filing is the inventory of supplies, materials, or salable goods on hand illustrated in Figure 3. This sort of inventory record refers only to the one showing the results of the physical in-


The Inventory Book
Figure 3.-The inventory book is an auxiliary record for the details that make up the total inventory, which is later brought into the Trading Account, and which is also entered in the balance sheet and the profit and loss statement, opposite the item, Current Inventory.
ventory (i.e., actual count, and not to the perpetual or running inventory, which is referred to later in the assignment. Such an auxiliary record is more common in trading concerns than in manufacturing industries. The latter are more likely to have perpetual-inventory ledgers.

The main purpose of the inventory book is to show the quantity, unit cost price, and total cost price of each class of articles on hand, and from
this the aggregate inventory value of all goods and supplies on hand at the close of a fiscal period. It is customary in trading concerns to take a physical inventory at least once a year.

A columnar form of book is found convenient for the inventory in concerns having a fairly standard line of goods. The book can be so arranged that opposite any specific article may be shown the quantity, unit price, and total price at the close of each of four or five years. This permits of easy comparison of results. It is found more economical in most concerns, because of variations in the styles or brands of goods carried, to prepare each year's inventory on sheets in typewritten form.

Because of the importance of the inventory for balance-sheet purposes, and in determining resources and profits, it is necessary that the inventory book or sheet should be very carefully prepared. The individual items should be priced at cost, unless the market price is less at the time of taking the inventory, in which case, accountants advocate using the market price. Cost price is better, however, if it appears certain that the change in price is only a temporary fluctuation.

Like most of the other auxiliary books and records, the inventory book is one in which values are assembled for the purpose of obtaining a total to be used in expressing debits and credits in the journal.

The entry will be:
Debit Current Inventory
Credit Trading, Purchases, or Cost of Sales
Trial-Balance Book. As its name implies, the trial-balance book is used for recording trial balances. In addition to the general ledger trial balance before closing, it also often contains the lists of balances of the subsidiary ledger.

The general ledger trial balance, containing names that do not change from month to month, is very well adapted to the columnar form. The trial-balance books on the market usually have provision for recording twelve trial balances by writing the names of the accounts only once. This presumes that a trial balance is taken every month.


The TrialrBalince Book
Figure 4.-This book provides a permanent record for monthly trial balances. If you were merely to set up your trial balances on sheets of paper, without keeping a permanent record, these papers might be lost or mislaid. If the trial balances are kept in a book, they can be easily referred to whenever necessary. Thus you see the reason for calling the trial-balance book an auxiliary record.
Since there are likely to be new accounts inserted in the course of a year, it is best to leave blank spaces for such insertions. These spaces should be left after each group of accounts.

File of Sales Tickets. In the retail business, sales are usually recorded first on sales tickets before they are brought into the main records. Sales tickets are of two types-those for cash sales and those for charge sales. Such tickets are filled in by the clerk making the sale and are quite simple in case of the small retail store. In a large department store, however, a somewhat more complicated form is used because of the necessity of showing the department, the sales person, the approval of a responsible sales supervisor, and other miscellaneous data. Cash sales are recorded on different colored tickets from sales on account. Tickets are made in duplicate by the use of carbon paper. The original copy is handed to the purchaser or delivered with the goods, and the carbon copy is sent to the cashier with the cash, if a cash sale. In case of a charge sale the ticket is sent to the bookkeeper. At the close of each day, the total of the cashsales tickets and of the sales on account is obtained.

The total of the cash sales is used as a basis for an entry in the cash book, expressing a debit to Cash and a credit to Sales.

Sales tickets, of course, cannot be considered as posting mediums when the totals are entered in some other book preparatory to posting. But when the sales tickets are kept in a binder, they may also be used as posting mediums, as explained in Assignment 8.

Any adding-machine lists prepared daily from cash-sales tickets, or sales tickets on account, should be preserved and filed with the day's tickets to which they apply. It is the practice in many stores to sort the tickets by departments and also by sales people, so that proper credit may be given each department and each salesman. Each department may have a separate account in the ledger, but each salesman need not have a separate account. Any records of sales made for individual salesmen are only statistical, and do not result in entries to any accounts in the general ledger. Care should be used, however, to see that the sum of all sales divided among the salesmen is equal to the sum of all sales for the day.

Cash-Register Strip. What has been said concerning cash-sales tickets might be applied in a general way to the cash-register strip. The latter is also an auxiliary record, because the total or totals calculated on the strip are used in setting up an entry expressing a debit to Cash and a credit to various accounts indicated. The sales made by each person can be found by the letter of the cash drawer assigned to each one, if the register has such a device.

If cash received from customers on account is placed in the cash register, such fact is recorded by a special key on the machine, or by placing a slip in the proper drawer. In either case, the amount received from customers on account would be credited to the respective customer's individual account and to the Accounts Receivable Controlling Account in the general ledger, as described in Assignment 9.

Miscellaneous Auxiliary Books and Records. Some of the more common books and records of an auxiliary nature have been discussed, but the list has not been exhausted by any means. There are other books in the average trading concern that might be presented, such as the shipping
clerk's record, various devices used by the purchasing or selling department to classify goods, markets, territorial districts, advertisements, etc. In addition to these, most lines of business have records peculiar to the specific business. Real estate agents have rent records, vacancy records, collection records, and others. Banks have signature books or cards, tellers' proof sheets, and other forms not necessarily used as posting mediums. Similarly, insurance offices, railroad offices, gas and electric companies, etc., have record books into which are placed fundamental auxiliary facts needed in the successful management of their business, but in which debits and credits are not expressed for posting purposes.

## BUSINESS PAPERS

The first step that is usually taken in any statistical investigation is the collection of the data. In the collection of data for the U. S. Census, certain specified forms are used in order to secure uniform data. Much the same principle applies in collecting data for the account books of a business. The accountant who designs the system knows what kind of information is wanted in the books and statements. Accordingly, he arranges to have such information collected in a systematic and uniform way. By designing business forms, he renders it possible or perhaps necessary for the clerks in a business to collect the same sort of data concerning transactions of a like nature.

In order to expedite and make uniform the collection of business data, various forms are provided which may be referred to by the general term of "business papers." This term may be applied to all forms used in business for the purpose of making a written record of anything in connection with the affairs of the business, at the time the transaction takes place.

Some common forms affecting the accounting procedure of a business are: sales invoices, debit memorandums or journal bills, purchase invoices, receiving records, store records, credit memorandums-issued and received - checks and cash receipts, notes and drafts, bills of lading, and statements of account. These business forms may be considered as formal letters passing from one department of a business to another, and to outside parties, notifying such departments or parties of some specific event that needs further tabulating or recording.

Sales Invoices. The sales invoice, commonly called "bill," does not differ materially from the sales ticket, except that the latter is usually employed in connection with retail businesses, while the invoice is used in wholesale, jobbing, or manufacturing concerns.

The starting point of the ordinary charge sale is the order. This may be a request to ship certain designated articles, coming from the salesman, in which case it will probably be written on a special form arranged to save time in the writing and to tabulate the articles desired. The order may come directly from the customer, and in this case it may be on one of his own order blanks or merely in a letter. Sometimes the order may originate in a telephone conversation. But in any event there must be at hand some memorandum of the goods wanted; and hence the order is
transcribed onto a sales invoice, regardless of the methud by which it was received.

Billing. When the goods have been shipped, the order goes to the billing clerks, who make out the bill or sales invoice. This document is a simple letter head with vertical rulings to make columns for quantities, prices, amounts, etc. Upon it is written the name of the buyer, the terms of the sale, the articles sent, with their respective prices, quantities, etc. This invoice operates to notify the buyer that the goods have been sent, and that he is now indebted to us for the amount named. Invoices are usually numbered serially for reference and filing purposes.

In large and progressive business establishments the billing process is often more complicated. The order goes at once to the billing department, where a "shipping ticket set" is made up. This set consists of: (1) Shipping ticket, on which shipment is actually made and from which the charge is posted to the customers' ledger. (2) Shipping memo, which is mailed to the customer on the day of shipment. This shows the essential packing and shipping information for the customer. (3) Bill or invoice, mailed to customer after it has been priced, extended, freight charges added, etc. (4) Packing slip, which is packed with the goods and shows the customer's purchase order number, so that the customer's receiving clerk can match it with the proper receiving slip in his file. (5) Ticket auditing copy, which is the accountant's control and follow-up record to insure each shipping ticket's being returned to file.

Debit Memorandum or Journal Bill. This record covers memo charges for returned material or for sales of equipment or merchandise on which there is no profit taken. The sale of scrap material or a second-hand machine would be handled on a journal bill and would not be included as a part of the regular sales volume.

Purchase Invoices. The source of information regarding our purchases is the purchase invoice. This is the document which to the seller is a sales invoice. For such of these purchases-invoices that represent merchandise to be resold-there is an entry made in the purchase book. These, however, are not the only invoices we are likely to receive, tho they will probably always be in the majority. Should equipment of any kind be bought, an invoice would come with the shipment just as in the case of merchandise, but such an invoice would be, in the case of the small business, the basis for an entry in the journal, if the bill was not to be paid at once (debit equipment; credit the seller) ; if it was to be paid at once, the entry to Equipment Account could come directly thru the cash book. In large organizations a special journal will likely be kept for such transactions, known as a "construction voucher journal."

Similarly, invoices for repairs, services, or expenses of any nature would not be entered in the regular purchase book. Their entry is made in the regular journal or a special journal. In a later assignment you will become familiar with the voucher journal (more often called the voucher register), in which invoices that have been approved for payment are usually entered, particularly in the larger business organizations.

Auditing Invoices or Vouchers. When an invoice is received it should not be paid until duly approved. It should not be approved until someone in authority has determined, thru the signatures of various responsible employes, that the goods or services charged on the invoice have been received or rendered, that the quantity and quality are of the kind contracted for, that the price per unit is the price agreed upon, and that the extensions (multiplications) and additions are correct.

This means, usually, that the invoice should be approved by the receiving clerk, the purchasing agent, and the clerk who verifies the mecchanical accuracy of the invoice. The financial officer or partner should always approve the invoices for payment. It is he who decides the priority of payment when there are a number of invoices on hand at one time. He is the one responsible for taking advantage of discounts. Purchase invoices are assigned numbers and may be filed in numerical order, or according to the name of the seller.



## Receiving Report

Figure 5.-In addition to the information which this report shows it is common also that the Receiving Report show that the goods have been inspected and passed by the inspector.

Receiving Records. Before a purchase appears on the books, it is entered on certain auxiliary records and papers. For example, when goods are received in the storeroom and have been examined and inspected, a preliminary record is made of the quantities received, either by the storekeeper or the receiving clerk. These preliminary records are called receiving records.

These forms will of course vary in details. One business will need receiving records that another business cannot use. Figure 5 illustrates a typical receiving report. Such a report should be made out in triplicate, the original being retained and filed in numerical order, or by date, by the receiving clerk. The second copy should go to the purchasing department, where it serves as notice of the delivery of material. The third copy follows the material to the storeroom.

Stores Records-Perpetual Inventory. The storekeeper not only receives stock or material, but also sends it out to the store or factory. This continued inflow and outflow of goods requires accurate accounting.

Accordingly the storekeeper, or whoever is in charge of stock, keeps a record of all goods received and all goods issued from stores. This record is called a stores' record and is part of the perpetual inventory system. It is termed perpetual because it shows currently the amount of goods on hand.

This is of great help to an accountant, especially when he sets up monthly statements, because he can get his current inventory amount from the records, instead of being required to take a physical count of all goods on hand. Of course these records should be verified, probably once or twice a year, i.e., checked with a physical inventory, and any differences traced.

The stores' records naturally vary greatly in detail, depending on the nature of a business. One of the simplest forms is reproduced in Figure


Perpetual-Inventory Record
Figure 6-This record will show currently-day by day-the quantity and value of goods on hand. It is preferably a loose-leaf or card record.
6. Later in the course, these records will be discussed more fully, in connection with manufacturing accounting.

All these records are auxiliary to the main records, and are controlled by accounts in the general ledger, as will be explained later.

Credit Memorandum Sales. In case sales are returned, or allowances requested, the fact would first come to notice in the correspondence. Later, this might be checked up by a report from the shipping room of the arrival of the returned goods. When the unsatisfactory nature of the goods had been verified, or the justice of the customer's claim otherwise passed upon, a credit memorandum, explained in Assignment 8, would be made out.

Credit Memorandums-Purchases. It will be observed that there will be credit memos for purchases, as well as for sales. What will be a salescredit memo to the seller becomes the purchase-credit memo to the buyer. It is good practice to make the entry (Debit, Accounts Payable; Credit, Purchases Peturned) only after receipt of the credit memo, as this prevents the entry of items about which there may be some dispute.

These documents are at once a means of communication and a basis for accounting entries. The invoice means that the goods named have been forwarded; the title now rests in the buyer, and he is indebted to the seller to the full amount specified. The credit memo means that indebtedness previously incurred is thereby reduced in amount and for the reasons specified. The bookkeeper of the concern receiving such a credit memorandum, therefore, makes an entry to show the facts as evidenced by this document.

A Statement of Account. A statement of account notifies a customer of the amount he owes. Such a statement is sent out usually at the close of each month. It shows the name and address of the customer, and indicates the date and amount of all sales invoices issued to that customer during the month, as well as any balance due from the preceding months. Statements are rendered also on old balances of inactive accounts, i.e., accounts which show no sales during the month. These statements or copies of them are sent to sales managers, who use them to follow up old customers for further business or for information as to why they are not buying regularly. No other facts concerning the invoices are shown. From the total of such invoices recorded on the statement of account are deducted any credits during the month, as for returned goods, allowances, cash, or notes. The resulting amount is what the customer is expected to pay soon, usually within the next thirty days.

The statements of account are made up from the ledger accounts of the various customers. They are not used as a basis for any further entries on the books of the concern issuing them. The concern receiving a statement of account makes an entry only in case it has not already made entries for each invoice as received.

Bill of Lading. When a freight shipment is made, the railroad company signs for the shipper a document called a "bill of lading," which serves as a receipt for the goods, and as a contract specifying the liability, the rights, and the duties of the shipper and of the railroad company. The bill of lading is in standard form.

The shipper usually makes out the bill of lading or shipping ticket, and the railroad agent signs it. It shows (1) the name of the shipper, (2) the name of the party to whom shipped, (3) the name of the railroad receiving it, (4) the routing, if it is to travel over different roads in going to its destination, and (5) the description and weight of each package. If it is a carload shipment, it shows the number of the car into which it is loaded, but does not need to show the details of the articles or commodities in the car. The shipping ticket, or bill of lading, should indicate whether the freight is to be prepaid or collect.

The foregoing discussion has acquainted you with many of the more important and some of the commoner forms and documents used in business.

Others worthy of notice which may be encountered in actual business operations are:

1. Plant and Equipment Record
2. Consignment Register
3. In-Bills Register
4. Claim Register
5. In-Freight Record
6. Out-Freight Record
7. Storage Record

It is obvious, of course, that the nature of the business will determine the nature of the miscellaneous forms required.

An understanding of such forms and their uses is indispensable.

## IMPORTANT POINTS IN THIS ASSIGNMENT

This assignment has afforded you an opportunity of becoming familiar with the accounting significance of numerous auxiliary records and business papers.

First of all, you have seen the need for such records and papers. As stated in the assignment, there are numerous business transactions that require analysis and classification in order that the details will be properly recorded.

Second-Some of the most important auxiliary records were illustrated and described. Each is auxiliary to the main accounting records.

1. Insurance Register-a record of detail facts about insurance policies.
2. Car-Record Book-a detail record of shipments received and sent.
3. Pay-Roll Book-for details of pay roll.
4. Inventory Book-a record of goods on hand for purposes of comparisons.
5. Trial-Balance Book-for monthly trial balances.
6. Sales-Tickets File-preliminary record for sales in main records of retail business.
7. Cash-Register Strip-provides totals for cash book.

Third-The following business papers were shown as aids in collecting accounting data.

1. Sales Invoices-in wholesale business.
2. Debit Memorandums-for returned material or sale of equipment.
3. Purchase Invoices-for merchandise and equipment.
4. Credit memorandums-for returned sales.
5. Statement of Account-for customers.
6. Bills of lading-in verifying details of shipments.

Fourth-Other business papers, such as plant record, consignment register, in-bills register, etc., were mentioned.

In the problems that follow, you have an opportunity to test yourself on your knowledge of these books and papers.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 14

## Send in solutions for all of the following problems:

1. State what transaction caused each of the following entries: (All the entries are shown in the journal form for convenience, regardless of the book of original entry in which they would usually appear.)
(a) Petty Cash

Cash
(b) Sales Returns
I. M. Heller
(c) Cash

Delivery Equipment
(d) Cash

Interest
Notes Receivable Discounted
(e) Purchases

Notes Payable
(f) Notes Receivable

Cash
Notes Receivable
W. Watson
(g) Cash

Sales Discount
John Walters
(h) Allen \& Company

Purchase Returns
(i) Allen \& Company

Cash
Purchase Discounts
(j) Interest Expense

Notes Payable
Cash
(k) Delivery Equipment

Cash
Notes Payable
2. Specify what business papers and auxiliary books are used for the following transactions, before they are entered on the books of account:
(a) Borrowed money from the bank
(b) Paid Granger \& Company for bill of merchandise
(c) Paid demurrage bill to Illinois Central R.R.
(d) Total cash sales for day
(e) Paid premium on fire insurance policy covering 3 years
(f) Bought ink and other office supplies on account
(g) Received note from customer to cover his account
(h) Bought window shades for office on account
(i) Allowed credit to customer for short weight
(j) Shipped merchandise to customer by freight
(k) Paid telephone rental for month.
3. We receive on October 5 an invoice from the Northwestern Coal Company for a shipment of five specified cars of coal on September 18. This coal has been unloaded in our yards. How can we find out from our records whether or not we received the coal?
4. On October 15 we receive an invoice dated October 14, terms $2 / 10$, $\mathrm{n} / 30$. What procedure should be followed before a check is issued in payment of this invoice?
5. From the following balance sheet and profit and loss statement shown on the next page, set up the trial balance as it appeared before closing:

```
            William Rayburn
BALANCE SHEET, DEC. 31, 1921
```

| Assets |  |
| :---: | :---: |
| Current Assets |  |
| Cash in Bank.........S 588.57 |  |
| Accounts Receivable.. 2,694.11 |  |
| Notes Receivable..... 1,000.77 |  |
| Inventory Dec. 31, 1921................. 4, 627.60 |  |
| Total Current Assets..... | \$8,911.05 |
| Office Equipment..... \$419.84 |  |
| Store Pixtures....... 183.60 |  |
| Delivery Equipment... 382.50 |  |
| Total Fixed Assets. | 985.94 |
| Deferred Charges |  |
| Insurance unexpired. | 63.93 |
|  | \$9,960.92 |

## William Rayburn

## Profit and Loss Statement

For Six Months Ended Dec. 31, 1921


# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assig̀nment 15 <br> FINDING, CORRECTING and PREVENTING ERRORS

$T \mathrm{~T}$ is not amiss to point out that the possession of a good ground work in accountancy is a distinct asset of increasing importance for one desiring to reach important executive positions.

W. S. CARPENTER<br>Vice-President and Treasurer E. I. DuPont De Nemours \& Co.

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN <br> ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

```
    1. The Balance Sheet
    2. The Profit and Loss Statement
    3. The General Ledger
    4. Closing the Ledger
    5. The Journal
    6. Closing the Ledger by Journal Entry
    7. The Cash Journal
    8. Merchandise Records-The Purchase and Sales Journals
    9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectable Accounts
18. Partnership Accounting--Formation--Operation
19. Partnership Accounting-Dissolution Prorlems-Joint
        Ventures
    20. Corporation Accounting-Formation-Operation
    21. Corporation Accounting--Reorganizations-Mergers
    22. The Voucher System
    23. Factory Accounting-Manufacturing Statement
    24. Factory Accounting-Perpetual Inventory-Overhead
        Distribution
    25. Classification of Accounts
    26. Single Entry
    27. Accounting for Nontrading Concerns
    28. Agency Accounts-Branciles-Consignments
    29. Comparative Statements
    30. Avalyses of Financial Statements-General Review
```


## FINDING, CORRECTING, AND PREVENTING ERRORS

The making of a single error on the part of a bookkeeper sometimes becomes a serious matter, not only to himself, but also to the management.

Here is what happened in a Chicago furniture house. The bookkeeper, who was inexperienced in locating errors, failed to post a receipt of $\$ 540.00$ from Mr. Smith, a customer, to Mr. Smith's account in the general ledger. As a result of this error several things happened.

First of all the monthly trial balance failed to balance. The bookkeeper spent hours looking for the error, but in vain. The trial balance was still off. What was the trouble? Simply that he did not know how to find his error. He wasn't familiar with the methods of locating errors. It was bad enough that a mistake had been made, but it was serious not to be able to find it.

Finally on the fifth of the following month, his books were turned over to an auditor who located the error and showed the bookkeeper how to proceed in finding similar errors. But this was not all. On the seventh of the month when Mr. Smith received his monthly statement, he was billed for $\$ 540.00$ more than his own books showed. He was being overcharged, so he demanded an explanation. Naturally he took up the matter with the proprietor.

In looking up Mr. Smith's account, it was found that the error had been corrected, but too late to avoid sending out a wrong statement. After an explanation, the matter was finally adjusted and the customer satisfied. In the meantime, however, hours had been spent in useless searching, which might have been saved had the bookkeeper been sufficiently trained in accounting; and what is more important the good will of a customer had been almost destroyed. All of this was the result of one error on the part of the bookkeeper.

Errors like this are bound to get into the double entry records at almost any place unless special care is exercised. That is why we take a trial balance periodically-to test the correctness of the debit and credit entries; in other words, to prove the mechanical accuracy of all previous work on the books.

From a brief review of previous assignments, dealing with the various phases of bookkeeping, an outline of this work preceding the trial balance may be presented. Each step gives opportunities for errors. The essential steps in the recording of transactions are as follows:

1. A memorandum of the transaction with all necessary facts.
2. Analysis of the transaction into its debit and credit elements.
3. Entry of the transaction in some one of the journals or books of original entry.
4. Footing and equalizing, or proving the journals.
5. Posting debits and credits respectively to the ledger, with folio cross reference.
6. Footing and balancing the ledger accounts.
7. Taking a preliminary trial balance to establish equality of debits and credits in the ledger.
8. Making closing entries to transfer and summarize the profit and loss accounts, also to determine the net profit for the period.
9. Posting the closing entries and taking a trial balance of accounts after the closing process.
10. Setting up of a balance sheet from the post closing trial balance, and profit and loss statement from the Profit and Loss Summary Account.
Each of these steps requires careful work, and if calculations and postings are closely scrutinized the trial balance and subsequent work will be mathematically correct. This, however, does not include wrong ideas as to the nature of transactions, or in other words, of principle. The detection of mistakes of this kind is more a matter of auditing and will be taken up later in connection with Auditing Procedure, together with the discussion of principles which govern the proper analysis and classification of entries.

The possibility of making errors always exists, and an accountant should know how to locate and correct them and suggest methods for preventing, or at least limiting, the possibility of mistakes.

The Chief Causes of Errors. Errors in accounting work may arise from one or more general underlying causes, such as carelessness, undue strain, or lack of training in accounting principles.

This results in such errors as the following:

1. Errors in addition, subtraction, or multiplication
2. Errors in copying
3. Charges or credits to wrong accounts
4. Omission and duplication of items
5. Errors in debits and credits

Errors in dealing with figures are due, frequently, to the carelessness with. which the figures are first recorded and the lack of close attention in the subsequent handling of them. Poorly made figures are a constant source of trouble. Often a 4 is so badly made as to resemble a 9 ; sometimes the dash is left off a 5 and the figure is taken as a 6 in subsequent calculations. The downward stroke of a 9 may be carried into the line below in such a way that it makes a 6 out of a 0 . Figures scratched over each other are always a cause of error; and figures on unruled paper are very hard to add correctly.

Lack of Training in Accounting Principles. The bookkeeper may not be familiar with certain fundamental accounting principles and may violate these principles in analyzing certain transactions. For example, he may charge the purchase of delivery equipment to the Expense Account, thus:

> Dr. Expense............ ............................................................................................................. $\$ 950.00$ Cr. Cash........
when it should be charged to the Asset Account.
Dr. Delivery Equipment........................................ $\$ 950.00$
Cr. Cash
$\$ 950.00$

Since this is obviously a capital expenditure, it should be charged to the Asset Account instead of the Expense Account.

Sometimes an operating expense is charged incorrectly to an Asset Account thus:

$$
\text { Dr. Buildings ............................................................................................................... } \$ 150.00
$$

Paying X.Y.Z. \& Co. for replacing window shades.
Since this is an operating expense, the correct entry would be:
Dr. Expense $\$ 150.00$
Cr. Cash
$\$ 150.00$

## THE FINDING OF ERRORS

As previously stated, the preclosing trial balance is the logical place to detect errors. There is where we would naturally begin, but some errors may exist within the ledger which will not affect the trial balance. For example, one error on the debit side may offset another error of equal amount on the credit side. In other words, even tho the totals of the trial balance agree, this would not be absolute proof that the ledger is without error. If, however, the trial balance is out of balance, there is positive proof that some error exists.

Procedure When Trial Balance Totals Do Not Agree. There is no definite rule for locating any and all errors, except by going over all work. There are several preliminary tests, however, which may indicate where the error exists. Very often a single error can be located quickly and corrected immediately. It is usually worth while to apply these tests before undertaking the work of checking back all postings and calculations.

The first step, of course, is to readd the trial balance. All work may be correct, but the final addition of the columns may be wrong. If the addition is correct for the figures as they appear, it is clearly indicated that the trouble is to be found in some previous step. A survey of possibilities shows that the error may be due to:

1. Posting an item to the wrong side of an account.
2. An error in copying when transferring a balance from the general ledger account to the trial balance.
3. Omission of a debit or credit amount which should have been posted.
4. Posting the same item twice.
5. An error in addition, bringing down the balance of an account in the general ledger.
Practical Rules for Locating Differences. There are several ways of trying out the difference between the debit and credit sides of a trial balance which may lead to a quick location of the error.
6. A difference of $.01, .10,1.00$, etc., suggests that an error has been made in addition or subtraction.
7. A difference of 9 or a multiple of 9 indicates a transposition of figures.
8. A difference divisible by 2 indicates an error in posting to the wrong side of an account, or carrying a debit amount to the credit side, or vice versa.
9. A difference divisible by 9 or 99 indicates an error in shifting the decimal point.
If the difference between the two sides of a trial balance is $.01, .10,1.00$, etc., the error is probably one of addition or subtraction. This assumption may be made, because in adding a long list errors of 1 are more likely to occur than errors of 2 or 3 . Sometimes in working rapidly, 5 and 6 will be added 11 -the first 1 will be put down correctly, but the second 1 will not be carried forward. A larger number to be carried forward is more likely to be carried forward correctly.


Figure 1.-This is a simple illustration. The error is quite apparent and not difficult to locate.

When the Difference Is Divisible by 9. If the error is divisible by 9 it can be assumed that certain figures have been transposed. It can be further determined, that only certain figures have been copied in error since there must be a certain relation between the figures to create the difference. Suppose the difference amounts to 18. Dividing the difference18 -by 9 gives a quotient of 2 . Subtract this quotient from 99 (the highest multiple of 9 requiring two columns), and the remainder is 97 . This establishes the first possibility; 97 may have been written 79. Other possibilities may be determined by subtracting 11 ( 1 in the tens column and 1 in the unit column) from 97. The remainder is 86 . Successive subtractions of 11 will give the other possible figures which may be reversed with the same result. Any of the following amounts (and transpositions) will create a difference of 18:

$$
97-79,86-68,75-57,64-46,53-35,42-24,31-13,20-02 .
$$

This method helps to localize errors of transposition and excludes all amounts not subject to the test. (See Figure 2.)

## TRIAL BALANCE



Figure 2.-There are two possibilities in this case, and since the error cannot be located on the face of the trial balance, the accounts must be investigated. It is not necessary, however, to examine all of them. It is possible to limit the investigation, first to the Accounts Receivable and Accounts Payable Accounts.

The ledger shows-
Accounts Receivable balance............................................ $\$ 6,378.42$
Accounts Payable balance.
6,414.86
The ledger might have shown-
Accounts Receivable balance............................................ $\$ 6,378.24$
Accounts Payable balance.................................................. 6,414.68
In either case a correction in the trial balance will bring the totals into agreement.

Notice also that the last two figures of the cash amount present a possibility of reversed figures, the result being a difference of 18, but if the figures are changed it would result in a further reduction of the debit side which is already less than the credit side. On this account the Cash Account would not be suspected as being wrong.

Some people have a habit of reading figures reversed. They should exert themselves to the utmost to break up the habit.

When the Difference Is Divisible by 2. Sometimes an account balance will find its way to the wrong column of the trial balance, as when a credit balance is shown in the debit column, or an item has been posted to the wrong side of an account. This will cause an error of twice the amount of the item which has been wrongly transferred. (See Figure 3.)

It is always advisable, therefore, when looking for an error, to divide the difference by two and consider the possibility of the half being in the wrong column of the trial balance or on the wrong side of some ledger account.

Whenever the same debit or credit is posted twice, or when a debit or credit is omitted in posting, the amount of the error will be the difference between the two sides of the trial balance, provided of course no other errors have been made.


Figure 3.-The difference between the two sides of this trial balance is $\$ 340.00$. By dividing $\$ 340.00$ by 2 and looking for half this amount we find that the balance of the Expense Account was entered in the wrong column of the trial balance. Another case is illustrated in Figure 4.


Figure 4.-In this case the total credits exceed the total debits by $\$ 350.00$. One-half of this amount is $\$ 175.00$. Apparently the mistake is not on the trial balance itself, for there is no such amount shown. The details of the accounts are not shown in this illustration, but a sale on account for $\$ 175.00$ posted to the credit side of Accounts Receivable, instead of to the debit side, would account for such a difference.

Slide, or Misplacement of Decimal Point. It is lack of attention in reading the decimal point that leads a person sometimes to write 2,000.00 for 200.00 , or to post 200.50 instead of 250.00 . Accurate concentration would lead to "thinking" the figure correctly, two hundred and fifty dollarsnot two hundred and fifty. Errors due to misplacing the decimal point are also divisible by 9 or 99 . This should not be confused with reversed figures, because the mistake is of a different nature. If the decimal point
has been misplaced by a one-column slide ( 8.00 instead of 80 ), the error is divisible by 9 . An error due to a two-column slide ( 200.00 instead of 2.00) is divisible by 99, etc. (See Figure 5.)


Figure 5.-The total of the debit side is $\$ 247.50$ greater than the credit side. This difference is divisible by 99 , which leads us to suspect a two-column slide. Since the debit side is greater, let us examine the possibilities. $247.50 \div 99=2.50$. This amount ( $\$ 2.50$ ) added to the difference $(\$ 247.50)$ equals $\$ 250.00$. We can see that the Plant Account is subject to the test. On looking up this account in the ledger, it appears that four thousand, two dollars, fifty cents ( $\$ 4002.50$ ) has been written four thousand, two hundred and fifty dollars.

Sometimes the difference is an amount such as $\$ 52.68$ or $\$ 783.97$ or $\$ .29$. These figures do not suggest an application of the foregoing tests, that is, they do not appear to be due to errors in addition, transposition, or misplacement of the decimal point. There are numerous possibilities in this case, and a consistent, systematic examination of the work is necessary. A plan should be adopted by which the accounts will be covered once and in the most logical manner. A good plan is to begin with the trial balance and trace the work back thru the various accounts instead of repeating the process of doing all the work leading up to the trial balance:

1. Check the Trial Balance.
(a) Check addition of totals.
(b) Check all accounts on trial balance back to the accounts as they appear on the ledger, being careful to see that the amounts are on the correct side.
2. Check the accounts in the general ledger.
(a) Examine footings and balance of each account.
(b) Check postings from books of original entry.
3. Check entries in books of original entry.

Errors in the Ledger. Errors can easily be made in ruling up an account and bringing down the balance. It is easy to write as the new balance below the ruling the total which stands just above it, or to twist about the figures so that the balance below the lines is not the same as the one above them on the opposite side of the account. A balance may even be left above the ruling and not be brought down at all. Again, in carrying an account forward to a new page, the balance or the totals of each side may be transferred incorrectly. All these things will, of course, produce an error in the trial balance which can be easily detected by inspecting the closed or forwarded accounts.

Reverse Posting-A Means of Localizing Errors. If the error cannot be traced by any of the methods which have been described, you should work back from the ledger to the books of original entry. This is called reverse posting or abstracting the ledger. This reverse posting is not difficult, provided you thoroly understand it.

To illustrate the procedure, we will take the accounts as they would appear in the General Ledger, and reproduce them in Figure 6.

CASH


ACCOUNTS RECEIVABLE

| $\begin{aligned} & 1922 \\ & \text { Jan. } \end{aligned}$ | 1 | Balance | - | 2,182 | 90 | 1922 | 31 | (C.B.) | 1,885 | 25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. | 31 |  | (S.B.) | 3,018 | 10 | Jan. | 31 | (J.) | 412 | 08 |
|  |  |  |  |  |  | Jan. | 31 | (J.) | 125 | 00 |

## NOTES RECEIVABLE

| $\begin{aligned} & 1922 \\ & \text { Jan. } \\ & \text { Jan. } \end{aligned}$ | 1 31 | Balance | (J.) | $\begin{aligned} & 990 \\ & 125 \end{aligned}$ | 00 | $\\| \begin{gathered} 1922 \\ \text { Jan. } \\ \text { \& } \end{gathered}$ | 31 | (C.B.) | 200 | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |

(Forms continued on next page)

## MERCHANDISE INVENTORY



## PURCHASES



ACCOUNTS PAYABLE


SALES

| $\begin{array}{\|l\|l\|} \hline 1922 & \\ \hline \text { Jan. } & 31 \\ \hline \end{array}$ | (J.) | 408 | 12 | Jan. | 31 | S.B. | 3,018 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Jan. | 31 | (C.B.) | 485 | 00 |
|  |  |  |  |  |  |  |  |  |

## EXPENSE



CAPITAL


## Ledger Accounts

Figure 6.-These ledger accounts are out of balance. To find the error we shall abstract the ledger as shown in Figure 7.

If you will take a trial balance of the accounts shown, you will find that the credit side exceeds the debit side by $\$ 3.96$. Instead of checking back the postings, you can localize the error by abstracting from the ledger, first, the debit postings, and then the credit postings, according to books of original entry from which the postings were made. The analysis of the above ledger is shown in Figure 7.

ANALYSIS OF DEBIT POSTINGS

| Accounts | Debit Balance Jan. 1 |  | Cash <br> Book |  | Journal |  | Purchase Book |  | Sales Book |  | Gross Debits Jan. 31 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash | \$ 625 | 00 | \$2,570 | 25 |  |  |  |  |  |  | \$ 3,195 | 25 |
| Accounts Receivable | 2,182 | 90 |  |  |  |  |  |  | \$3,018 | 10 | 5,201 | 00 |
| Notes Receivable | 990 | 00 |  |  | \$125 | 00 |  |  |  |  | 1,115 | 00 |
| Mdse. Inventory | 1,893 | 26 |  |  |  |  |  |  |  |  | 1,893 | 26 |
| Purchases |  |  |  |  |  |  | \$2,381 | 50 |  |  | 2,381 | 50 |
| Accounts Payable |  |  | 2,128 | 65 | 288 | 10 |  |  |  |  | 2,416 | 75 |
| Sales |  |  |  |  | 408 | 12 |  |  |  |  | 408 | 12 |
| Expense |  |  | 369 | 10 |  |  |  |  |  |  | 369 | 10 |
| Capital |  |  |  |  |  |  |  |  |  |  |  |  |
| TOTALS | \$5,691 | 16 | \$5,068 | 00 | \$821 | 22 | \$2,381 | 50 | \$3,018 | 10 | \$16,979 | 98 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

Abstract of the Ledger
Figure 7. This statement is made up from the ledger accounts in Figure 6. The amounts are classified according to the books of original entry from which they were

Explanation of the Analysis. In this analysis sheet you will observe that a column is provided for each book of original entry and one line for each account. If there are many items from each book of original entry, more than one line for each account should be allowed.

You notice that the debits and credits for each book of original entry agree except those of the journal. The credits posted from the journal are $\$ 3.96$ more than the debits. This is the amount of the difference in the trial balance. We have, therefore, localized the error in the journal. An examination of the journal entries for the month will disclose either an error in posting from the journal or an error in the journal itself. In this case, we find that when the bookkeeper posted the return sales of $\$ 412.08$, he posted it as $\$ 408.12$.

This method of reversing the postings will localize the error, but will not always disclose the nature of the mistake made without still further examination. It does, however, enable you to discover the error more quickly than if you were to check the postings item by item. This method of finding errors is frequently used by public auditors, as it eliminates the necessity of making undesirable check marks on the books and also furnishes the auditor with a complete abstract of the books for his own files.

Errors in Books of Original Entry. It is advisable to begin with the folio columns of the books of original entry for any unposted items. Such items would show up quickly because of the vacant spaces in the folio column where, properly, there should be ledger page numbers. Especial

ANALYSIS OF CREDIT POSTINGS

| Accounts | Credit Balance Jan. 1 |  | Cash Book |  | Journal |  | Purchase Book |  | Sales Book |  | $\begin{aligned} & \text { Gross } \\ & \text { Credits } \\ & \text { Jan. } 31 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash |  |  | \$2,497 | 75 |  |  |  |  |  |  | \$ 2,497 | 75 |
| Accounts Receivable |  |  | 1,885 | 25 | $\$ 412$ 125 | $08$ |  |  |  |  | 2,422 | 33 |
| Notes Receivable |  |  | 200 | 00 |  |  |  |  |  |  | 200 | 00 |
| Mdse. Inventory |  |  |  |  |  |  |  |  |  |  |  |  |
| Purchases |  |  |  |  | 288 | 10 |  |  |  |  | 288 | 10 |
| Accounts Payable | \$1,128 | 50 |  |  |  |  | \$2,381 | 50 |  |  | 3,510 | 00 |
| Sales |  |  | 485 | 00 |  |  |  |  | \$3,018 | 10 | 3,503 | 10 |
| Expense |  | 3 |  |  |  |  |  |  |  |  |  |  |
| Capital | 4,562 | 66 |  |  |  |  |  |  |  |  | 4,562 | 66 |
| TOTALS | \$5,691 | 16 | \$5,068 | 00 | \$825 | 18 | \$2,381 | 50 | \$3,018 | 10 | \$16,983 | 94 |
| Difference between Dr. and Cr. |  |  |  |  | \$3 | 96 |  |  |  |  | \$3 | 96 |

Abstract of the Ledger
posted. Thus, totals are obtained and the error is localized, that is, you can deternine in what book of original entry the error was made. In this case the error was made in the journal.
attention should be given at this point to the posting of totals, since the totals are more likely to be overlooked in posting than the details.

## CORRECTION OF ERRORS

Whatever the cause of errors, they can be found. Where the amount of the difference plainly suggests some particular type of error, time and labor may be saved by applying the tests previously described. If these tests do not reveal the error, the work must be carefuliy rechecked. An error must be found, no matter how small it might be. An error of 13 cents may be the net result of several errors of large amount, some of which may be of considerable importance.

Careless Corrections May Cause Other Errors. Errors should always be corrected at once, carefully and completely. This last phrase is added advisedly, because the correction of errors is often the source of other errors. An error in writing a figure may be detected easily. If it be corrected by writing over the figure the resulting "sign" (it can hardly le called a figure) may often cause an exasperating error later. Cases are known where entries have been corrected by moving an amount from on column to another in a book of original entry without altering the total of the column, the total to be posted later. In such a case correcting the error
will cause another, or at best permit a part of the original mistake to stand. It is important, therefore, that you Make Corrections Carefully, Thoroly, and Completely.

Where to Begin in Correcting Errors. When the error exists in the trial balance, and the ledger is correct, it will be necessary only to set up a new trial balance, and correct the wrong amounts. But when the trial balance fails to balance because of mistakes in the ledger or in books of original entry, these mistakes should be corrected first at the source. In other words, do not correct the trial balance first and then later correct the ledger and books of original entry. You may forget to correct the error itself, and thus leave the books still out of balance. The best way is to correct the errors on the books of account first, and after all corrections have been made then take a trial balance for final verification.

Practical Suggestions on How to Make Corrections. Do not erase errors. Accountants are strongly opposed to altering figures by scratching or rewriting them. Dishonesty is sometimes concealed beneath scratched figures; they are, therefore, the subject of extra close scrutiny, not to say suspicion. Besides, an erasure usually results in unsightly books with the ink spreading over the roughened surface, often to the extent of rendering the amounts indistinct. A safe rule to follow is: Do not make corrections in a way that may:
(a) Cause confusion in the verification or analysis of ledger accounts.
(b) Impair the value of books of original entry as evidence in a court of law.
(c) Destroy the neatness of the records.

How to Proceed in Correcting Errors. First of all the nature of the error should be determined and the correction made accordingly.

1. Cancel the original entry and make a new entry. Most mechanical errors, such as miscopying amounts, posting to the wrong side of an account, errors in addition, incorrect balances, failure to post a debit or a credit to an account, etc., should be ruled out neatly with red ink, and the correct amount should be entered in the proper place. The date of making the correction and the initials of the person correcting the error should be added, for the sake of having a complete record. If this error has affected other accounts the correction should be made there also; otherwise the direct entry will cause still greater confusion.
2. Enter all items that have been omitted. All transactions which were omitted in books of original entry should be entered in the proper books, asually at the bottom, the totals corrected, and the correct totals posted.
3. Correction of errors in principle. Errors in principle require a journal entry that will reverse the incorrect entry. For example, if you find that the purchase of delivery equipment has been charged to an expense
account instead of to an asset account, you will make this correcting journal entry:

> Dr. Delivery Equipment................................... \$......................................................
> Expense
> \$.

To correct an improper charge to the Expense Account for the purchase of delivery equipment.
After the journal entry is made, it must be posted, and the error in the accounts corrected by red line rulings.

## PREVENTION OF ERRORS

In developing the double entry system of accounts thruout the preceding assignments, we have frequently suggested specific devices of safeguarding the accounting records against errors. The more important are as follows:

1. The journal was introduced to assure a more careful analysis of the debits and credits before the transactions are entered in the ledger.
2. The folio column in the journal and ledger provides an accurate cross reference by which any omissions in posting can be detected.
3. Special journals provide greater accuracy in the original entry, because only certain types of transactions are entered in certain books, as, for example, cash items in the cash journal.
4. The trial balance before closing or "proof sheet" is a test of the equality of debits and credits in the ledger.
5. The trial balance after closing proves the correctness of the closing process.
6. Controlling accounts are set up in the general ledger to serve as a control on the accuracy of the detail accounts in the subsidiary ledger.
Care Necessary in Making Additions. There is only one way of preventing errors and that is to train yourself to handle figures accurately. Intelligent training means more than blindly adding and adding until accuracy is finally acquired by mere repetition. So many errors are made in addition that anyone who constantly deals with figures, naturally wishes to improve as rapidly as possible. When concentration is acquired by habit, accurate adding becomes easy, for the absence of strain in forcing the mind to combine figures leaves that much more energy free to the task of holding the attention on the amount carried over to the next column.

Transfer of Figures. Adding, however, is not the only operation where attention needs training. Figures must be transferred from place to place, as well as added. There are three steps in the mental effort of transferring figures:

1. Reading the original amount.
2. Mentally carrying the amount to another page.
3. Writing the amount carried in mind.

The best advice here is to think the amount. Do not be content merely to carry a visual image of the figures. Think the amount as clearly and in the same words as if you were calling it aioud. If you think the figure
when reading it, and again when writing it, you will find the mind will carry the amount over safely enough. Some people murmur the figures under their breath, but generally this is a makeshift for training in thinking figures. Thinking is a faster mental process than talking, and it may be made just as clear and connected.

Checking Postings at the Time Amounts Are Posted. If you check your postings immediately at the time when the amount is posted, you will prevent numerous errors. Sometimes the practice is to recheck all postings, say at the end of each day. This prevents errors from accumulating, but involves a duplication of the posting effort. Many of the best bookkeepers follow the plan of checking the posting at the time it is made. This means more than merely putting a pencil mark after the figures; it involves a special mental effort. If you can develop the faculty of erasing from your mind the figures just posted, you can then look at the amount before you in the ledger as a new and strange figure.

Having this mental attitude, it is an easy matter to look back to the book of original entry for the amount posted and verify the figures transferred. A little practice makes this a very effective method of checking, which will save a great deal of time. It is time saving to scan again the figures while they are before you rather than turn pages later to find them.

Internal Check. Most devices which are intended to "catch the error young," before it has become buried too deep in the records, are classed as "internal checks." The principle of internal check, briefly stated, is this: Where the same facts are worked over by two or more people, the two sets of results afford a means of testing the accuracy of the record. This principle is based upon the general experience that two persons are very unlikely to make the same error; if their work agrees, it is very probably correct.

Not only is the internal check valuable for finding errors early, but it also prevents fraudulent entries, intentionally made to misrepresent facts.

You have already had one example of the internal check in controlling accounts for the subsidiary ledgers of customers and creditors.

If you go into any bank you will also find the internal check in use. The deposit tickets received by the teller are totaled by him before they are handed over to the ledger clerk for posting to the individual accounts. Then after the posting of the day is finished, the ledger clerk takes off a list from the ledger of the deposits posted. The total of this list must agree with the total of the list obtained by the receiving teller. If it does not agree, the work should be rechecked until the discrepancy is accounted for.

Methods of Proving Your Work. The importance of checking and verifying all results cannot be too strongly emphasized. The following methods are commonly used by bookkeepers and accountants:
(a) Addition-Add the figures twice in reverse order while they are before you.
(b) Subtraction-Add the remainder back to the amount subtracted before leaving it or using the result.
(c) Multiplication-Divide the product by the multiplier to obtain the multiplicand, or by the multiplicand to obtain the multiplier.
(d) Division-Multiply the quotient by the divisor and add the remainder to this product to obtain the dividend.
You can prevent numerous errors by exercising great care in the following:

## 1. Recording Transactions

(a) Every entry made in a book of original entry should be supported by some written evidence, such as an invoice, sales ticket, etc. Provide a safe place for these papers to accumulate; as each paper is removed and recorded, cancel or otherwise mark it. This procedure will serve as a check against recording the same transaction twice or omitting a transaction entirely.
(b) Foot the debit and credit columns (do not enter totals unless done lightly in pencil on margins) in the journal to test the equality of debits and credits.
2. Posting
(a) Make sure that your cross references are made for each item posted-scan the folio columns at the time of posting.
(b) Make periodic tests of the postings to the controlling accounts by preparing lists of the balance of the accounts contained in the subsidiary ledgers. If there is a discrepancy between the general and subsidiary ledgers, an error has been made in recording, posting, or extracting the balances of the account. Thus it can be corrected at once.
3. Preparing a Post-Closing Trial Balance
(a) A trial balance after closing is of great assistance in finding errors that might be made after the regular trial balance is taken and before the subsequent period begins.

## MAIN POINTS IN THIS ASSIGNMENT

This assignment has emphasized the need for accuracy in recording transactions. As illustrated in the assignment, one error can cause a lot of trouble for the bookkeeper, and may even affect the progress of a business.

Mistakes can easily creep into the records at almost any point and cause errors:

1. In addition, subtraction, or multiplication
2. In copying figures
3. In making charges or credits to the wrong accounts
4. In omitting and duplicating items
5. In misplacing debits and credits

In dealing with errors we have made the following practical suggestions:

First-Find the Errors

1. In the trial balance
2. In the ledger
3. In the books of original entry
4. As a final resort abstract the ledger

Second-Correct errors carefully and completely

1. Correct errors first at their source
2. Do not erase or scratch over
3. Add all omitted items

Third-Try in every way to prevent errors

1. In addition
2. In transferring figures
3. In checking postings
4. By means of the internal check
5. Prove every part of your work

With these points clearly in mind take up the problems. They will challenge your best effort at accurate and careful work.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 15

The following problems are typical of actual business situations. Prepare and send in to the University solutions to all the problems.

1. Below is a list of errors frequently made. For each one, state whether the making of the error would cause the debit or credit side of the general ledger trial balance to be greater, and how much.
(a) Omitted to post from the sales book the sale to Hayes and Ginder of $\$ 450$ on account.
(b) At the beginning of the period the balance of the capital account was carried down as $\$ 6,830.00$, instead of $\$ 6,380.00$, as it should have been.
(c) Posted to the debit side of Accounts Receivable Account, an amount of $\$ 325.00$ paid to Arthur Wright, a creditor.
2. State whether each of the following errors, if left uncorrected, would cause the profit for the period, as it would appear on the profit and loss statement, to be greater or less than it should be, and by how much.
(a) Charged to Repairs Account $\$ 8,400$, the cost of installing a much-needed freight elevator in office building.
(b) In carrying forward from the bottom of a ledger page, during the period, the balance of $\$ 315.00$ purchase discounts was carried to the wrong side of the account at the top of the new page.
(c) Posted $\$ 15.00$ to the debit side of furniture and fixtures account instead of $\$ 1,500.00$, the amount that should have been posted.
3. John Lucky, the proprietor of a grocery store, withdrew $\$ 275.00$ cash for personal use in paying household expenses. On the same date he invested an auto truck, valued at $\$ 700.00$, in the business. The truck had recently been given to Mr. Lucky by his father. In recording these facts, the bookkeeper deducted the cash withdrawal from the value of the truck and made the following entry:

Auto Truck $\$ 425.00$
John Lucky, Capital.
$\$ 425.00$
(a) Did he record the transactions properly?
(b) If not, would the equilibrium of the trial balance be affected?
(c) Again if not, how would you proceed to correct the error?
4. The books of original entry and general ledger accounts of J. F. Dwyer, wholesale dry goods dealer, are shown on the following pages as they existed on June 15, 1921.
(a) From the accounts as they now stand take a trial balance.
(b) Should the trial balance indicate that some errors have been made, locate them and state how you would make the correction in each case.
(c) Reproduce the trial balance with all apparent errors corrected.

## JOURNAL



CASH BOOK-Receipts


CASH BOOK-Disbursements


SALES BOOK

| Date | L.F. | Explanation | Terms | Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1921 |  |  |  |  |  |
| June 2 |  | John Light. |  | \$ 750 | 00 |
|  |  | R. P. Penn. . |  | 225 |  |
|  |  | R. S. Sloane. . |  | 110 |  |
| 9 |  | Cash. . |  | 300 |  |
| 9 |  | Amos Walls. |  |  |  |
| 10 |  | Brown Bros. . |  |  | 00 |
| 12 |  | A. B. Kline . |  | 490 | 00 |
| 14 |  | Wilson \& Son. . |  | 150 | 00 |
| 15 |  | Dr. Accounts Receivable Cr. Sales |  | \$2,285 | 00 |
|  |  |  |  |  |  |

PURCHASE BOOK

| Date | L.F. | Explanation | Terms | Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1921 <br> June 4 |  | A. B. C. \& Co.. . . . . . . . . . . . . . |  | \$2,375 | 00 |
| 9 |  | James King. . . . . . . . . . . . . . . . |  | 450 | 00 |
| 12 |  | A. H. Stoner \& Son. . . . . . . . . . . . . . . |  | 900 | 10 |
| 13 |  | L. N. Murphy . . . . . . . . . . . . . . . . . |  | 1,185 | 00 |
| 15 |  | H. K. Howard Co.. . . . . . . . . . . . . . . . . |  | 175 | 00 |
|  |  |  |  | \$4,985 | 10 |

GENERAL LEDGER ACCOUNTS
J. F. Dwyer, Capital


CASH


## PURCHASES

| $\overline{{ }^{1921}}$ | 6 | Cash | \$ 150 |  | 1921 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . | 15 | Cash | 1,700 | 00 |  |  |  |  |  |
|  | 15 | Total on a/c | 4,958 |  |  |  |  |  |  |

## SALES

| 1921 |  | $\vdots \quad$; |  |  | Fl921 | 9 | Cash | \$ 300 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 12 | Cash | 650 | 00 |
|  |  | - |  |  |  | 15 | Cash | 175 | 00 |
|  |  | : |  |  |  | 15 | Total on a/c | \$2,285 | 00 |

SALES RETURNED


## EXPENSE

| $\begin{aligned} & 1921 \\ & \text { June } \end{aligned}$ | 1 | Insurance | \$ 100 | 00 | 1921 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | Advertising | 325 | 00 |  |  |  |  |
|  | 10 | Office desk | 52 | 50 |  |  |  |  |
|  | 15 | Wages | 155 | 00 |  |  |  |  |
|  |  |  |  |  |  |  |  | 1 |

## ACCOUNTS RECEIVABLE



NOTES RECEIVABLE


NOTES RECEIVABLE (Discounted)


NOTES PAYABLE


## ACCOUNTS PAYABLE

| $\begin{aligned} & 1921 \\ & \text { June } \end{aligned}$ | 7 | A. B. C. \& Co. cash | \$ 375 | 00 | $\sqrt{1921}$ | 15 | Total purchase on a/c | \$4,985 | 110 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | Our note to A. B. C. \& Co. | 2,000 | 00 |  |  |  |  |  |
|  | 14 | L. N. Murphy, cash | 300 | 10 |  |  |  |  |  |
|  | 15 | James King, cash | 450 | 00 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

## BUILDINGS

| 1921 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| June |  |  |  |  |  |
|  | 1 | Investment | $\$ 7,350$ | $00 \mid$ |  |

LAND

| June | 1 | Investment | $\$ 1.800$ | 00 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

## MERCHANDISE INVENTORY



## FURNITURE \& FIXTURES



Note: It is assumed that the amount for each asset, purchase, sale, and expense, as shown in the varioas books of original entry, is correct.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

Assignment 16 PERIODIC ADJUSTMENTS FOR ACCRUED AND DEFERRED ITEMS

THE unusual development of World Commerce, carrying with it the necessity for great financial institutions, industrial organizations, and business corporations and partnerships, has created an imperative demand for higher accounting efficiency which it is difficult to meet.

There is a vast difference between the bookkeeper who mechanically records the work assigned to him and the trained accountant who is able to treat his work intelligently. One remains a time server-the other becomes an executive.

Hayes Flowers, C. P. A.
Formerly State Auditor and Member of the
Tennessee State Board of Certified Public Accountants.

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

## 1. The Balance Sheet

2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## PERIODIC ADJUSTMENTS

## FOR ACCRUED AND DEFERRED ITEMS

Many bookkeepers pride themselves on their ability to keep their records free from mechanical errors, such as those discussed in the preceding assignment. That in itself is an admirable accomplishment. But it doesn't go far enough. Along with this accuracy should go a thoro knowledge of fundamental accounting principles.

The bookkeeper of a certain auto supply house recently went thru a rather humiliating experience, which he might have avoided if he had applied the accounting principles which are set forth in this assignment.

Briefly stated, this is what happened:
At the end of the year the bookkeeper closed the books and set up the balance sheet and profit and loss statement showing a net profit of $\$ 12,372.65$. He then submitted the two statements to each of the officers of the company.

When the treasurer received the statements, he compared them with the statements of the preceding year and found that the net profit had decreased over $\$ 2,000.00$.

He at once suspected that something was wrong. Being a man who had had considerable experience in accounting, he made an independent check on the books.

This is what he found. During the first month of the year $\$ 900.00$ was paid out for insurance, to cover a period of three years, and this entire premium had been charged into the Expense Account of the current year, just $\$ 600.00$ too much. He also found that $\$ 1,500.00$ was spent for office supplies, $\$ 1,200.00$ of which was still on the shelves and represented an asset, rather than an expense, for the period. The result was that the net profit shown on the profit and loss statement was $\$ 1,800.00$ too small, and the baiance sheet did not show among the assets unexpired insurance and office supplies.

The treasurer also looked over the notes receivable register for notes due from customers, most of which were interest bearing. He figured the interest on these notes from the date of issue, or from the date of the last interest payment, up to the date of the financial statements. This amounted to $\$ 350.00$, which was really income for the current year, even tho it would not be due until some time later. This should have been included among the other income items.

With these items before him, the treasurer called in the bookkeeper and asked for an explanation. The bookkeeper maintained that his books contained a record for every transaction of the period, that his books were in balance, and for this reason his balance sheet and profit and loss statement must be correct.

The treasurer not only pointed out the bookkeeper's errors, but he also brought out the fundamental accounting principles that he failed to apply: "Your statements are false and misleading because they are incomplete. In fact they are useless to us who manage the affairs of the company, for two reasons:
"1. Your balance sheet does not show all the assets.
2. Your profit and loss statement shows $\$ 1,800.00$ too much expense and fails to show $\$ 350.00$ interest income.

[^4]The treasurer had found the real trouble. It is typical of what happens to many bookkeepers who pride themselves chiefly on the mechanical accuracy of their records, but who fail to make an intelligent analysis and interpretation of the records.

The general ledger is, to be sure, a continuous record of all transactions, sales, purchases, expenses, incomes, as these transactions take place. This the bookkeeper mentioned above had accomplished. His ledger was correct. But this is not enough. Business is subject to continual changes in values, which it is not practical to record at the time, because this would involve a tremendous amount of bookkeeping. For example, interest earned on notes receivable is accumulating every day and every hour. The same is true of interest payable. To record this accumulation daily would require too much time.

Accountants, therefore, adjust the ledger periodically for all such items. To omit such items would result in false and misleading statements. This can be illustrated by another situation taken from business. The trial balance shown in Figure 1 shows the ledger of A. J. Swift, as it stood on December 31, 1921:

| A. J. Swift <br> TRIAL BALANCE, DECEMBER 31, 1921 |  |  |
| :---: | :---: | :---: |
| Equipment. | \$ 700.00 |  |
| Accounts Payable |  | \$ 780.00 |
| Accounts Receivable. | 3,640.00 |  |
| Capital. |  | 5,633.00 |
| Cash | 1,255.00 |  |
| Customers Discounts. | 146.00 |  |
| Purniture and Fixtures | 500.00 |  |
| Income from Rent. |  | 195.00 |
| Insurance Expense. | 420.00 |  |
| Interest Expense . . | 90.00 |  |
| Merchandise Inventory, July 1, 1921. | 1,670.00 |  |
| Notes Payable. |  | 2,000.00 |
| Notes Receivable | 1,600.00 |  |
| Office Expense | 645.00 |  |
| *Purchases. . . | 6,810.00 |  |
| Purchase Discounts |  | 114.00 |
| Rent. | 1,500.00 |  |
| Sales. |  | 12,460.00 |
| Selling Expense ${ }^{\text {Stationery and Office Suplies }}$ | 720.00 |  |
| Stationery and Office Supplies Wages. | 1,030.00 |  |
|  | \$21,182.00 | \$21,182.00 |
| *Inventory, December 31, 1921, \$1,960.00. |  |  |

The Unadjusted Trial Balance
Figure 1. This trial balance shows the balances in the ledger before closing, and before making any adjustments for accrued and deferred items. The statements in Figure 2 are set up from this trial balance.

From this trial balance we will first make up a profit and loss statement and a balance sheet, using the amounts just as they are shown
(See Figure 2). In doing this, we need to make an adjustment for the current inventory of merchandise in order to determine the cost of the goods sold. This adjustment for the two inventory figures and the purchases for the period was fully discussed in Assignment 4.

A. J. Swift

BALANCE SHEET, DECEMBER 31, 1921

| ASSETS | LIABILITIES AND CAPITAL |
| :---: | :---: |
| Current Assets: | Current Liabilities: |
| Cash . . . . . $\$ 1,255.00$ | Notes Payable. . . $\$ 2,000.00$ |
| Accounts Receivable 3,640.00 | Accounts Payable . 780.00 |
| Notes Receivable . 1,600.00 |  |
| Current Inventory. 1,960.00 | Total Current Liabilities. . . \$2,780.00 |
| Total Current Assets . . . . . \$8,455.00 | Net Worth: <br> Capital, July 1. . $\$ 5,633.00$ |
| Fixed Assets: | Net Profit . . . 1,242.00 |
| Purniture \& Fixtures 500.00 |  |
| Equipment. . . . . 700.00 | 6,875.00 |
| Total Fixed Assets. . . . . . 1,200.00 |  |
| \$9,655.00 | \$9,655.00 |

Figure 2. Financial statements made up at the end of the accounting period without giving effect to required adjusting entries. The statements are not complete, because they do not reflect the actual condition of the business. Follow the discussion, and you will see just in what respect they are defective.

Since, however, it is the purpose of accounting to give a correct report of the final worth of a going business, it is necessary before using this trial balance for statement purposes to examine the accounts and see if all facts are included. If that is not the case, the reports as shown in Figure 2 will be inaccurate and misleading.

## ACCRUED ITEMS

A careful examination of certain accounts listed in the preceding trial balance will bring out facts, which have not yet been recorded, but which have a direct bearing on the condition of the business. To begin with, we find that certain items have accrued, that is, have been growing larger, which ordinarily would not be entered until some future date. For example:

## 1. Accrued Interest Receivable <br> 2. Accrued Wages Payable <br> 3. Accrued Interest Payable

Now that we are closing the books, and setting up the statements, we must bring these and any similar accrued items into the ledger, in order that they will appear in the statements, and thus the statements will show the actual condition of the business.

Accrued Interest Receivable. First of all take the matter of interest earned but not yet collected. We will naturally examine the Notes Receivable Account.

Notes Receivable


We find that the notes receivable, $\$ 1,600$, as shown in the ledger account, bear $6 \%$ interest; therefore, when the notes come due the business expects to receive interest in addition to the payment of the principal. This interest, however, is earned during the time the notes are held, not when it is collected. Therefore, we should set up the amount earned to date, December 31, 1921, by the following entry-

December 31, Interest Receivable (accrued asset).................................... $\$ 11.00$ Interest Earned (income)
\$11.00
Accrued Wages Payable. A similar adjustment must also be made for wages payable, which is an expense for 1921 and a liability at the end of the year. First we examine the Wages Account in the ledger.

Wages


The account shows that wages have been paid each week during the month, but the last four days of the month must also be included, wages having accrued for December 27 to December 31. The amount of wages unpaid is $\$ 17.00$, and the following entry will adjust this account and complete the record:

December 31, Wages (expenses) $\$ 17.00$
Wages Payable (accrued liability)
$\$ 17.00$
Accrued Interest Payable. Likewise, an examination of the Notes Payable Account shows that $\$ 20.00$ interest has accumulated, up to December 31, which should be brought into the ledger as an expense for the period.

Notes Payable


In this case, the obligation for borrowed money is properly recorded, but the interest which has accumulated from November 1 to December 31 is not accounted for. The note bears $6 \%$ interest, payable when the note matures. To show the amount of accrued liability for interest due to date, an adjusting entry must be set up.

December 31, Interest (expense) . 20.00
Interest Payable (accrued liability)
$\$ 20.00$
In each of these cases, the adjusting entry sets up an account for the accrued asset or the accrued liability, and thus makes possible a statement of the actual financial condition at the closing date. It also shows that the income is earned in the period when the service is rendered, not when the cash is received. Similarly, the expense is charged into the period which receives the benefit, not when the payment is made. The cash receipts and payments simply represent the final settlement of these transactions.

## DEFERRED ITEMS

There are other items of exactly the opposite nature that also require adjustment. For example, an expense or income may have already been recorded, but the service paid for or collected for, as the case may be, is not all applicable to the present period. Certain expenses and incomes are deferred items, that is, carried over into the subsequent period. In such cases adjustments must be made in order that the portion which should be applied to subsequent periods will be deferred.

Prepaid Rent. Here is the Rent Account, as it appeared on the ledger, December 31, 1921.

Rent Expense


Looking into the facts of the Rent Account, we find that rent, as specified in the lease, is paid quarterly, in advance. The last entry of $\$ 375.00$, therefore, covers two months of the present period, November and December, and one month of the next, namely, January. To defer the rent paid for January, the following adjusting entry is required:

December 31, Prepaid Rent (deferred asset).......................................... $\$ 125.00$ Rent (expense) $\$ 125.00$
Office Supplies. The following account also appears on the ledger of A. J. Swift.

Stationery and Office Supplies

| Dec. | 31 | Balance | $\$ 456\|00\|$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

At the close of the period, an inventory of stationery, postage, etc., shows that $\$ 40.00$ worth is still on hand. This represents an asset, that is, it has a value to a going business which will probably be used up during the following period. This amount of the charge to expense, $\$ 40.00$, is therefore carried forward to the next year by the following entry.

Inventory of Office Supplies (Deferred Asset)
$\$ 40.00$
Stationery and Office Supplies (Expense)
$\$ 40.00$
Prepaid Insurance. We next turn to the Insurance Account, since part of the premiums paid will provide insurance protection for part of the following year.

Insurance Expense


We find in this case that the insurance paid for up to September 1 has all expired. The premiums paid on September 30 were for a year in advance. It would be improper, therefore, to consider all of this expense as applicable to the present period, because $9 / 12$ of $\$ 120$, or $\$ 90$, covers the following period. The following entry makes this adjustment.

December 31, Prepaid Insurance (Deferred) $\$ 90.00$ Insurance (Expense)
$\$ 90.00$
Deferred Income from Rent. The A. J. Swift Company subleases part of its building, and receives rent in advance, as shown in the following account.

## Income from Rent



This account shows that a part of the store is rented for $\$ 45.00$ every three months, payable in advance. The payment of October 31 covers November, December, and the following January. Therefore, $\$ 15.00$ of this income rent for January has not been earned at the close of the period, altho it has been received. This amount is a deferred liability or a deferred credit until it has been earned. It will appear on the liability side of the balance sheet under the caption of Deferred Credits. It is brought into the records of the next period by the following entry:

December 31, Income from Rent (Income)

## TWO METHODS OF HANDLING DEFERRED ITEMS

From the above explanation, you will note that in the case of deferred items, the record of the transaction is made at the time the cash is paid or received. Generally speaking, there are two methods of handling these transactions. One of these we have given. For example, when an insurance premium is paid it may be charged directly to expense, as in the case given above. This method makes necessary the adjusting entry as already illustrated, and in order to get the amount deferred back into expenses for the next period, a reversing entry is made after the books have been closed.

A second and better method is to charge the amount, when paid, directly to the Deferred-Asset Account, since cash has simply been converted into a value of another kind. Then as this value decreases, credit this Deferred-Asset Account and debit Expense at the end of each period with the value which has expired or is used up. In this way the deferred amount remains in the Asset Account.

Take, for example, the adjustment for office supplies which was given on page 6. When the $\$ 456.00$ worth of supplies are bought, say on June 30, we will charge this amount directly to the Deferred-Asset Account, Office Supplies, rather than to an Expense Account, thus:

## Office Supplies

| June | 30 | Purchase of <br> Office Supplies | $\$ 456$ | 00 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Then on December 31, we will credit this Asset Account with the actually used-up amount, $\$ 416.00$, and debit Expense Account thus:

Office Supplies


Office Expense

| Dec. 31 | Office Supplies | $\$ \$ 16$ | 00 |  |
| :--- | :--- | :--- | :--- | :--- |

This second method brings out clearly the nature of deferred items. They are mixed accounts, being partly real and partly nominal. The real part is the deferred charge or the deferred income, which becomes an asset or liability, as the case may be, on the balance sheet for the purpose of proper accounting control. The nominal part is the expense or the income earned for the closing period, and therefore will be included in the profit and loss statement. It is for the purpose of separating the real and nominal elements that adjusting entries are required.

## WORKING SHEET AN AID IN MAKING ADJUSTMENTS

In order to provide an accurate and convenient method of making all these adjustments mentioned, accountants prepare a tabulation or statement, called the "working sheet." See Figure 3.

In preparing such a working sheet, begin by listing in the first two columns the trial balance before closing and before adjustments are made. Then enter the adjustments, debits, and credits in the two columns immediately to the right of the trial balance. Add up the debit and credit columns for adjustments. The total debits and total credits should be equal, thus proving that equal debits and credits have been made in the adjusting entries.

To the right of the adjustment columns, set up two more columns for the adjusted trial balance. By the adjusted trial balance is meant the same trial balance of the first two columns, with the amounts changed wherever they are affected by the adjustments. Then add these two columns to prove that no errors have been made in extending and changing the amounts.

Next to the adjusted trial balance set up two more columns, in which you will extend all amounts for the profit and loss accounts and the inventory adjustments. Add the columns and you will find that the debit and credit sides are not equal. If you have a credit balance, add an amount to the debit side large enough to make the two sides balance. This will represent the net profit. If the debit side is larger than the credit side, add the difference to the credit side, as net loss.

To complete the working sheet, set up two columns next to the profit and loss columns. In these columns list the assets as debits and the liabilities and capital as credits. Extend the net profit or net loss to make the two columns balance.

The working sheet does not take the place of entries on the books. Its purpose is simply to lay out the work systematically and check results in connection with making the adjusting entries.

Such a sheet provides a means of assembling in one place all the figures with which you are working. If, for example, you examine the accounts

of a trial balance preparatory to making adjustments, you will find this or that item that needs adjustment. Instead of noting down these items on scattered sheets or scraps of paper, you can use the working sheet to advantage, by listing all the adjustments systematically. In this way you can maintain a balance while you make adjustments.

Then, by extending the amounts in the proper columns, you separate the profit and loss statement items from the balance sheet items. This segregation of items on the working sheet is of considerable help when you prepare the financial statements.

Practicing accountants also find the working sheet a great help in making adjustments at the time of auditing a set of books.

Adjusting Entries Journalized. After the adjusted trial balance has been proved, as shown by the working sheet, the adjusting entries should be recorded in the general journal, as shown in Figure 4. The items are then posted to the general ledger.

A clear distinction must be made between adjusting entries and closing entries. Closing entries are made after all necessary adjusting entries have been made. Each account after adjustment is a true real account or a true nominal account. When this has been accomplished, the accounts should be closed by journal entry, as explained in Assignment 6.

ADJUSTING JOURNAL ENTRIES


Adjusting Journal Entries
Figure 4. These are the same journal entries which we made in the examination of the accounts. The only difference is that here we have set them up together in the journal just as would be done in practice.

Profit and Loss Statement After Adjustment. The following statement is a proper arrangement of the profit and loss items in report form. As you note, it contains the same items as those in the Profit and Loss columns of the working sheet, only in a different arrangement. This profit and loss statement shows a net profit of $\$ 1,456.00$ in comparison with $\$ 1,242.00$, which was the amount shown before making the adjustments. This error of $\$ 214.00$ illustrates clearly the necessity of such corrections and adjustments before preparing financial statements.


Figure 5. The Profit and Loss Statement, made up from the adjusted trial balance.
Balance Sheet After Adjustments. You will also notice from the comparative balance sheets given below the effect of the adjustments on the financial condition. The current assets were understated by $\$ 11.00$, and deferred charges of $\$ 255.00$ were omitted. On the other hand, liabilities to the extent of $\$ 52.00$ were not shown. The following balance sheet includes all these items.


The Balance Sheet After Adjustments
Figure 6. Here you have the unadjusted and the adjusted balance sheets side by side. You can easily see how the adjusted balance sheet is a much more accurate and complete statement of the financial condition than the balance sheet before adjustments are made. Notice that Deferred Charges and Deferred Credits are shown on the balance sheet under special headings, while accrued items are listed under Current Assets and Current Liabilities.
In conclusion it will be desirable to see graphically how the periodic adjustments for accrued and deferred items are brought finally into the
financial statements. Follow the arrows on the chart in Figure 7, and you will see at a glance how these adjustments are carried from the working sheet, thru the journal into the ledger, and then by means of the adjusted trial balance into the statements.

## THE MAIN POINTS IN THIS ASSIGNMENT

You will do well to check over the assignment at this time in order to assure yourself that you have mastered the essential accounting principles. Use the following outline as a guide. Then apply these principles to the solution of the problems.

First-Ordinary business transactions are recorded daily in the books of original entry and the ledger. But there are certain values that change continuously like interest, rent, insurance, etc. They are growing larger or smaller every minute and hour. These are called accrued and deferred items. To bring such changes of value immediately and continually into the books would require too much bookkeeping. So accountants make adjustments for these items periodically, i. e., at the time of closing the books.
Second-Accounts must be examined to determine what items are to be adjusted.
Two general classes of items need adjusting.

1. Accrued Assets and Accrued Liabilities
2. Deferred Charges and Deferred Credits

Third-Accrued assets include such items as interest receivable, commissions receivable, etc. They represent earnings that increase continuously, but are not yet in the form of cash. They will eventually be collectible, hence they are classified on the balance sheet under current assets.
Accrued liabilities include such items as interest payable, wages payable, etc. They represent expenses that accrue continuously, but which have not yet been paid. They will eventually have to be paid, hence they are classified on the balance sheet under current liabilities.
Fourth-Deferred charges are assets which later become expenses like office supplies and unexpired insurance.
Deferred credits are liabilities which later become income, such as rent received in advance.
Fifth-These accrued and deferred items are brought into the ledger by means of the working sheet, from which adjusting journal entries are set up. These journal entries are posted to the ledger.
Sixth—After adjustments are made a new trial balance is taken, from which the financial statements are set up. These statements will then present the true condition and progress of the business, and therefore can be safely used by the manager or proprietor for comparative purposes.
Other adjustments for depreciation of assets and for probable losses on accounts receivable will be taken up in the next assignment.
CHART SHOWING PROCEDURE FOR HANDLING ADJUSTMENTS OF ACCRUED AND DEFERRED ITEMS

Figure 7. Follow the arrow and you will see how the bookkeeper brings the adjustments into the ledger and financial statements. Step 1-Make Adjustments on Working Sheet. Step 3-Post Adjusting Entries to Ledger.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 16

Send in solutions for all the following problems. If you can apply the principles explained in the assignment to the problems, you will be prepared to handle similar situations in actual accounting practice.

1. State which of the following items are deferred charges to Expense and which are deferred credits to Income.
(a) Prepaid insurance
(b) Insurance premium received in advance
(c) Prepaid rent
(d) Interest paid in advance
(e) Water tax received in advance
(f) Interest received in advance
(g) Prepaid water tax
(h) Rent received in advance.
2. The A. B. Kensington Manufacturing Company insures its plant for five years against fire. The premium, payable in advance, amounts to $\$ 870.00$. The policy is issued July 1, 1921.
(a) Show two methods of bringing this transaction on the books at time of payment of premium.
(b) Make the necessary adjusting journal entry on December 31, 1921.
(c) What entry should be made December 31, 1922?
3. From the following trial balance and supplementary facts:
(a) Prepare a working sheet.
(b) Make adjusting journal entries as of December 31, 1921.
(c) Make a profit and loss statement for the year ended December 31, 1921.
(d) Make a balance sheet as of December 31, 1921.

Inventories: (Items that require adjustment)
Merchandise, Dec. 31, 1921 ..... \$1,680
Office Supplies ..... 50
Accrued Interest Payable ..... 65
Accrued Interest Receivable ..... 75
Accrued Salesmen's Salaries ..... 2,000
Accrued Office Salaries ..... 675
Unexpired Insurance ..... 100

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

Assignment 17<br>PERIODIC ADJUSTMENTS for DEPRECIATION and UNCOLLECTIBLE ACCOUNTS

THE accounting profession has many attractive possibilities, and the broadness of the experience of a first-class accountant is such that he is fitted for many things in the business world.

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## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger-
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## PERIODIC ADJUSTMENTS

## FOR DEPRECIATION AND UNCOLLECTIBLE ACCOUNTS

For many years practicing accountants have advised business men to allow for depreciation of fixed assets and make provision for losses from uncollectible accounts. This they have advocated for accounting as well as business reasons; namely, in order that the accounting records and the financial statements may reflect the true condition of the business.

For a long time business men were rather reluctant to have their books show such losses. When, however, the Federal Income Tax law went into effect, they immediately saw the advantage of allowing for depreciation and of writing off bad debts, because they found that the government permitted the deduction of such items in determining the net taxable income. As a result, ever since 1913 accountants have met very little opposition on the part of business concerns to bringing such items into the accounts.

Credit Analysis a Modern Practice. Another situation that has helped to give the proper significance to losses from depreciation and uncollectible accounts is the progress in credit analysis. If a business house fails to provide for such losses its net profit will be overstated and the book value of its assets will be too large. Credit men and bankers are pointing out to business men that such losses must be considered in order to secure accurate figures, which are essential, not only to the efficient management of their business, but also necessary to the safe extension of credit.

In this Assignment the principles that govern the calculation and recording of such items will be explained and illustrated. You will find that losses from depreciation and from uncollectible accounts are provided for in the records periodically by adjustment in very much the same way that accrued and deferred items were adjusted in the preceding assignment. To attempt to bring these items into the records daily would require too much time. The result is that periodic adjustments are made:

## I. For Depreciation. <br> II. For Uncollectible Accounts.

We shall now consider these adjustments separately.

## I. PERIODIC ADJUSTMENTS FOR DEPRECIATION

To understand these adjustments, you should first of all be familiar with the nature of depreciation and its causes.

Depreciation an Operating Expense. Most property is perishable. In time it wastes away or wears out, regardless of any means we may take to prevent it. Buildings, machinery, and equipment of all kinds wear out or decay, and thus continually diminish in value. This wearing out
or gradual diminishing in value is called Depreciation. In trading concerns it usually represents an operating expense, which, like all other expenses, must be properly accounted for, so that it will appear both in the ledger and in the statements. In manufacturing concerns, of course, part of this depreciation is accounted for as one of the costs of manufacturing and part as an operating expense.

Suppose that on January 2, 1917, your business bought an auto truck for $\$ 3,000.00$; that in 5 years' time this truck wears out and you sell it for $\$ 600.00$. Obviously, you have an operating expense here of $\$ 2,400.00$. How should it be handled? Would you charge it all against the profit of 1921?

That certainly would not be good accounting. The truck has served during the five year period, and because of that service its value has gradually diminished. Therefore, this reduction in value should be distributed in some equitable way over the five years.

If it is assumed that each year should bear one-fifth of the total loss, then at the end of each year $\$ 480.00$ should be set up as an expense of operation. In other words, depreciation represents a continual decrease in the cost of an asset, due to operations of the business.

Chief Causes of Depreciation. In order to distribute depreciation expense equitably over a period of years, we must determine the probable life of the asset. To do this it is necessary to understand the causes of depreciation. For example, a frame building will be affected more by weather, climate, etc., than by wear and tear. A machine may wear out, or it may become inadequate, more quickly than a building, and need to be replaced with another machine more modern and up to date.

The following summary gives the four causes of depreciation as they are usually classified:

1. Physical Depreciation.
(a) Wear and tear from operations.
(b) Action of the elements.
2. Functional Depreciation.
(a) Inadequacy.
(b) Obsolescence.

We have already illustrated physical depreciation. The $\$ 3,000.00$ auto truck, for example, depreciates in value for reasons stated in (a) and (b) under 1, both of which are physical causes.

Functional depreciation refers to business usefulness. Suppose a business installs machines of a certain type costing $\$ 10,000.00$. In a few years' time a new type of machine is invented which is more efficient, either reducing the cost of operation or increasing the output. Competition from users of the new machine forces the proprietor to abandon the old machines and install the new type, costing $\$ 20,000.00$. The old machines may still be serviceable. They have not depreciated fully from
wear and tear or from the elements. In fact, they may be in almost perfect operating condition, but they must be replaced to meet competitors' production or costs.

Suppose the old machines are sold as secondhand machines for $\$ 2,-$ 500.00 . Since the machines cost $\$ 10,000.00$, there is a loss of $\$ 7,500.00$, which represents functional depreciation. It is evident that this $\$ 7,500.00$ loss should not all be loaded on the period in which the machines are sold. Some provision should have been made to distribute it over the periods in which the machines were in use.

Adjustments for Depreciation Expense. In showing how depreciation is entered on the books we shall use again the case of the auto truck purchased January 2, 1917, for $\$ 3,000.00$. The total amount to be written off or depreciated during the five-year period is $\$ 2,400.00$ (that is, $\$ 3,000.00$ minus $\$ 600.00$ ), making $\$ 480.00$ for each year.

The first thing to do is bring the $\$ 480.00$ annual depreciation upon the books as an operating expense. This is accomplished by charging the $\$ 480.00$ to an expense account-"Delivery Expense" or "Depreciation of Delivery Equipment."

But what account are you going to credit? Your first impulse might be to credit the $\$ 480.00$ to the Delivery Equipment Account, since the depreciation is a reduction of the asset value. This would appear to be in line with the principle explained in an earlier assignment, that asset accounts are increased by means of debits and decreased by means of credits.

This method would be satisfactory if the depreciation charge represented the exact amount of reduction in the value of the asset. It represents, however, an estimated shrinkage. If a similar credit were made to the asset account each year for five years, the total credits at the end of five years would amount to $\$ 2,400.00$. This $\$ 2,400.00$ credit represents an estimated loss in the value of the asset on the assumption that you can sell it for $\$ 600.00$. You may, however, get more or less than $\$ 600.00$, in which case the $\$ 2,400.00$ will represent too much depreciation or too little.

In other words, any credits that you make for depreciation are "credits in suspense," and for this reason they should not be entered in the asset account. The asset account should always show the original cost of the asset and should not become complicated with credits for estimated losses. If such credits are made to the asset account the original cost might be obscured, especially in cases where a new ledger is opened each year. No asset account should be credited except at the time the asset is retired from service.

In case of loss from fire covered by insurance, the original cost must be known as well as the amount written off as depreciation, so as to make proper adjustment with the insurance company. In case of a prospective sale, also, it would be more desirable to have the original cost in the current record, rather than be compelled to analyze a complicated account.

Need for a Reserve for Depreciation Account. To meet this need of business for definite facts, accountants have adopted the practice of crediting depreciation to a special account, called Reserve for Depreciation Account, instead of making the credit directly to the asset account. In this way the asset account will always show the original cost and the Reserve Account will show the suspended credits for depreciation. Thus the book value can be easily determined at any time by subtracting the reserve from the original cost.

The $\$ 480.00$ annual depreciation of delivery equipment in our illustration will therefore be credited to the Reserve Account. On December 31, 1917, we will make the following adjusting entry:

```
Dec. 31; 1917 Depreciation of Delivery Equipment \(\$ 480.00\) Reserve for Depreciation..........
\(\$ 480.00\)
```

For 1 Year's Depreciation of Delivery Equipment.
This journal entry is then posted to the accounts, as in Figure 1.
Depreciation of Delivery Equipment


Reserve for Depreciation


Figure 1. Accounts showing the debit and credit for Depreciation
The Depreciation Account will be closed on December 31, 1917, into the Profit and Loss Account. The Reserve Account will remain open as an offset to the Delivery Equipment Account, as shown in Figure 2. In other words, instead of crediting the depreciation to the asset account, we set up a temporary account into which we enter the suspended credits for the estimated reduction in the value of the asset.

Reserve for Depreciation a Valuation Account. This Reserve Account has a growing credit balance, because similar credits will be made at the end of each of the five years estimated as the life of the asset. Even tho the account has a credit balance, it is not a liability account, since it does not represent an indebtedness. It is in fact, nothing more or less than the credit side of the asset account, set aside as a separate

Delivery Equipment


Reserve for Depreciation

| 1917 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Figure 2. Reserve Account an offset to the asset account
account, in which the decreases in the value of the asset are recorded, as illustrated in Figure 3.

Asset Account


Figure 3. Credit Side of asset account developed into a new account
Such a Reserve Account is called Valuation Account, because its credit balance must be deducted from the asset account in determining the book value of the asset. Some accountants, therefore, have suggested the title, Allowance for Depreciation, rather than Reserve, because it directly offsets the asset account and represents an estimated allowance for depreciation.

This valuation function is made clearer by means of an illustration.
For example, the book value of the auto truck on December 31, 1917, can be determined by subtracting the $\$ 480.00$ credit in the Reserve Account from the original cost, $\$ 3,000.00$, which stands as a debit in the asset account. The book value on December 31, 1917, therefore is $\$ 2,520.00$.

Now let us assume that similar adjusting entries are made each year for five years. At the end of the fifth year the Reserve will have a credit balance of $\$ 2,400.00$, as given in Figure 4.

## Reserve for Depreciation



Figure 4. Reserve Account at the end of five years
This Reserve shows that the delivery equipment, which originally cost $\$ 3,000.00$, now has a book value of only $\$ 600.00$.

How to Show Depreciation on the Balance Sheet. There are two ways of handling the Reserve for Depreciation Account on the balance sheet, illustrated in Figure 5.

1. On the Liability Side.
2. On the asset side as a deduction from the original cost.

## Method 1

Balance Sheet, December 31, 1918

| Delivery Equipment Other Assets | \$ 3,000 | Liabilities | \$ 20,000 |
| :---: | :---: | :---: | :---: |
|  | 117,000 | Reserve for Depreciation Net Worth | $\begin{array}{r} 960 \\ 99,040 \end{array}$ |
|  | \$120,000 |  | \$120,000 |

## Method 2

Balance Sheet, December 31, 1918

| $\begin{aligned} & \text { Delivery Equipment } \\ & \text { Allowance for Depreciation } \end{aligned}$ | $\begin{array}{r} 2,040 \\ 117,000 \end{array}$ | Liabilities Net Worth | $\begin{array}{r} \$ 20,000 \\ 99,040 \end{array}$ |
| :---: | :---: | :---: | :---: |
|  | \$119,040 |  | \$119,040 |
|  |  |  |  |

Figure 5. Two Methods of showing Reserve on Balance Sheet
Both methods are used in practice. It is largely a matter of preference which method to use, depending mainly on the purpose or use of the balance sheet.

There may be an advantage in showing depreciation subtracted from the original cost of the asset, as in Method 2, since in this way the depreciated value of the asset is given at a glance. This avoids the necessity of making the subtraction when the balance sheet is analyzed later.

How to Determine the Depreciation Rate. One kind of property will naturally depreciate much faster than another. A frame building, for example, will depreciate at a faster rate than a stone, brick, or concrete building. Moreover, the same building would depreciate more quickly if it contained machinery that produced heavy vibrations than when used for storage or for trading purposes. To determine the rate of depreciation, therefore, you must analyze each case, because of the various factors that must be considered.

There are several ways of determining the rate. The simplest will be mentioned here, namely, the "ordinary life," or "flat rate." Other methods will be explained in a later section of the course.

Three things enter into the determination of the rate.

1. Original cost.
2. Life of the asset, number of years it will serve.
3. Probable scrap value.

To illustrate, take the same case of the auto truck, purchased for $\$ 3,000.00$. How is the rate of depreciation determined?

What will be the value of this auto truck at the end of the first year? It has been in use during the year and the paint may have become damaged, etc. It certainly is not worth $\$ 3,000.00$.

The junkman may be willing to pay only a few hundred dollars for it, the secondhand dealer may give $\$ 600.00$ for it, another business concern may pay $\$ 2,000.00$ or more for it, while its value to the company itself is approximately the same as at the date of purchase. It is necessary, therefore, to estimate as closely as possible the life of the truck.

If it can reasonably be assumed that the truck costing $\$ 3,000.00$ will have a useful life of five years and an estimated scrap value of $\$ 600.00$ at the end of that time, then we determine the rate as follows:
Annual Depreciation ( $\$ 480.00$ ) - Original Cost $(\$ 3,000.00)=$ Rate ( $16 \%$ )
Retirement of Depreciated Assets. If $\$ 480.00$ is charged off as an expense and credited to a Depreciation Reserve periodically, the Reserve will amount to $\$ 2,400.00$ at the end of the five-year term. If the old truck is then sold for $\$ 600.00$, the old asset account will be closed by the following entry:

```
Reserve for Depreciation. . . . . . . . . . . . . .$2,400.00
    Cash. . Deivivery Equipment. . . . . . . . }600.0
Delivery Equipment. . . . . . . . . . . . . \$3,000.00
```

After the journal entry is posted, the asset account will stand closed, as in Figure 6.

> Delivery Equipment


Figure 6. Asset account closed when asset is retired

In actual practice, however, it seldom happens that the asset is sold exactly for the estimated scrap value.

Suppose that at the end of five years we receive only $\$ 500.00$ instead of $\$ 600.00$ for the truck as scrap value. The $\$ 100.00$ loss would be handled by debiting Capital (Surplus in case of corporations), and crediting the Delivery Equipment Account, thus:
Capital Deivery Equipment. . . . . . . . . . . . . . . . $\$ 100.00$ \$ 100.00

The reason for charging this difference to Capital is that since the amount of depreciation was underestimated in the beginning the Capital has been credited with a profit that is too large. Hence the additional $\$ 100.00$ should be charged against the Capital Account. The asset account will stand closed, as given in Figure 7.

Delivery Equipment


Figure 7. Asset account closed when asset is sold for less than estimated amount
On the other hand, let us suppose we receive $\$ 700.00$ instead of $\$ 600.00$ for the truck. If this is received in cash, the $\$ 100.00$ excess will be debited to Cash and credited to Capital, the Delivery Equipment Account receiving the $\$ 600.00$ credit needed to balance it, thus:

```
Cash . . . . . . . . . . . . . . . . . . . . . . . . . $700.00
\begin{tabular}{lll} 
Delivery Equipment. . . . . . . . . . . . . . . . & \(\$ 600.00\) \\
Capital . . . . . . . . . . . . . . . . . . . . & 100.00
\end{tabular}
```

It is evident that the Capital Account should be credited here with the $\$ 100.00$, for in writing off too-heavy depreciation during the life of the asset the Capital Account has been overcharged by that amount thru Profit and Loss, and hence crediting the excess, $\$ 100.00$, to the Capital Account would restore it to its proper condition.

When the estimated life of an asset proves to be too large or too small, similar adjustments must be made to Capital or Surplus. For example, if at the end of the fourth year we find that the truck is worn out, this means that we have overestimated the life by one year. Assuming that we sell the truck for $\$ 600.00$ at the end of the fourth year, we would make the following entry:

```
Cash. . . . . . . . . . . . . . . . . . . . . . . .$ }600.0
Capital . . . . . . . . . . . . . . . . . . . . . . }480.0
Reserve for Depreciation. . . . . . . . . . . . . 1,920.00
    Delivery Equipment. . . . . . . . . . . . . . $3,000.00
    To close the Equipment Account
```

In case we underestimate the life of the truck, an adjustment must also be made to correct the Surplus or Capital Account. For example,
suppose that at the end of five years we find that the truck will still be useful for another year, with a probable scrap value of $\$ 600.00$ at the end of the sixth year. This means that we have charged into operations $\$ 80.00$ too much each year. The annual charge should have been $\$ 400.00$ instead of $\$ 480.00$. The Reserve Account should have a credit balance of $\$ 2,000.00$ instead of $\$ 2,400.00$ at the end of the fifth year. The following adjusting entry will therefore be made:

$$
\begin{gathered}
\text { Reserve for Depreciation . . . . . . . . . . . . . . . . } \$ 400.00 \\
\text { Surplus . . . . . . . . . . . . . . . . . . . . }
\end{gathered}
$$

Repairs and Renewals of Parts. Repairs and Renewals are intended to keep the asset in good, serviceable condition, while depreciation apportions the cost of an asset over the term of years benefited by its service.

On the other hand, it is a fact that an asset will not depreciate so fast if it is kept in good repair. If repairs are neglected, the life of the asset will be shortened. Therefore in estimating the life of an asset and determining the rate of depreciation allowance should be made for reasonable maintenance.

Replacements of Depreciated Assets. Under Replacements let us consider two possible cases:

1. Old asset sold and new asset bought.
2. Old asset traded in as part of purchase price of new.

For the first case, assume that machinery costing $\$ 10,000.00$ is estimated to have a life of ten years and a scrap value at the end of ten years of $\$ 1,000.00$. At the end of five years the machinery is sold for $\$ 6,000.00$ and replaced with new machinery costing $\$ 20,000.00$.

The Reserve for Depreciation Account was credited each year with $\$ 900.00$. Therefore at the end of the fifth year, when the machinery is sold, the Reserve has a credit balance of $\$ 4,500.00$.

This transaction requires three entries.

1. Entries for the sale of the old machinery.
2. Entries for the purchase of the new machinery.
3. Entries for the retirement of the old asset.
4. For the sale of old machinery :

5. For the purchase of new machinery:
```
Machinery (New asset) . . . . . . . . . . . . .$20,000.00
    Cash (or Accounts Payable). . . . . . . . . $20,000.00
```

3. For the retirement of the asset:
[^5]Now take the second case mentioned above, namely, replacing an asset by trading in the old asset. Suppose that the old machines were traded in at the end of the fifth year as part payment for the new machines. The trade-in value allowed for the old machines may be assumed to be $\$ 5,000.00$, which is $\$ 4,000.00$ more than the estimated scrap value. The entries for this transaction will be:

|  | Reserve for Depreciation. <br> Machinery (Old asset) | $\$ 4,500.00$ | \$4,500.00 |
| :---: | :---: | :---: | :---: |
| To close the Reserve |  |  |  |
|  | Machinery | . $\$ 20,000.00$ |  |
|  | Accounts Payable. ${ }_{\text {Machinery ( }}$ (0ld asset) |  | \$15,000.00 |
|  | Machinery (0ld asset) |  | 5,000.00 |
| To record purchase of new machinery. |  |  |  |
|  | Surplus | \$500.00 |  |
|  | Machinery (Old asset) |  | \$500.00 |
|  | To record the loss on sale. |  |  |

## II. PERIODIC ADJUSTMENTS FOR UNCOLLECTIBLE ACCOUNTS

Method of Recording Bad Debt Losses as They Occur. One method of handling losses on customers' accounts is to charge these losses off only as they occur, without making any provision for them in advance. In this case no Reserve is used. For instance, when it is found that Mr. Jones' Account of $\$ 215.00$ cannot be collected, the entry under this method will be:

Loss on Bad Debts (or Bad Debts)
Accounts Receivable--Jones
$\$ 215.00$
This Bad Debts Account is closed into Profit and Loss in the same way other expense accounts are closed at the end of the period. This method however is not acceptable, since it charges the current period with a loss on an account that may be of large amount and may have been standing on the books for a time running back over several periods. The better method is shown in the next paragraph.

Better Method of Estimating Losses from Bad Accounts. The probable losses on customers' accounts may be estimated in advance by one of the following methods:

1. By taking a percentage of Sales.
2. By taking a percentage of Accounts Receivable.
3. By an inspection of Open Accounts.

The percentage of bad debts, as based on net sales, seems to be the method most commonly used. To determine this percentage for any particular business, past records must be inspected and an average taken. This percentage, of course, varies in different businesses, depending upon its nature and on local conditions.

In some businesses it is a small fraction of 1 per cent. In others you will find that the percentage is higher, and in businesses carrying installment accounts it may run very high.

Reliable investigations were made by the Harvard Bureau of Research and System in 1919, which show the average amount for various lines of business. For example, for furniture stores, $19 / 10$ per cent is the average loss from bad debts, almost 20 times as large as for variety stores, which has been found to be one-tenth of 1 per cent. Jewelry and Dry Goods have about two-tenths of 1 per cent loss, while hardware and clothing lines run around three-tenths of 1 per cent.

Suppose that it is estimated that 2 per cent of net sales is a fair amount to consider as loss, and that net sales amount to $\$ 150,000.00$ annually. This would mean a loss of $\$ 250.00$ for each month, which would be charged to Expense and credited to a Reserve for Doubtful Accounts.

It may happen during any month or period that there will be no actual losses incurred on customers' accounts, but it is good business policy to make this provision, nevertheless. The collection department records will serve as a guide in establishing the amount of loss to be reserved.

In case a customer's account proves uncollectible, as in the case of Jones', mentioned above, the amount of the loss will be written off against this Reserve by debiting the Reserve and crediting the Accounts Receivable Account; for example, thus:

```
Reserve for Doubtful Accounts . . . . . . . . . . . . $215.00
    Accounts Receivable--Jones . . . . . . . . . . . $215.00
```

To write off the balance of Jones' Account or Loss.
The account of the customer will now appear closed, as shown in Figure 8.

Jones


Figure 8. Customer's Account closed out as uncollectible
If it should turn out that a customer makes payment on his account after it has already been written off as worthless, the entry for this payment would be a debit to Cash and a credit to Surplus (in case of a corporation) or to Capital (in case of an unincorporated concern).

Treatment of Reserve for Doubtful Accounts on Balance Sheet. The Reserve for Doubtful Accounts may be shown on the balance sheet just like Depreciation Reserves, either as a deduction from the Accounts Receivable Account on the asset side or with other items on the liability side.

Reserve Accounts in the Working Sheet. Both depreciation and loss from bad debts are adjusted in the working sheet, along with the other adjustments for accrued and deferred items, unless standard entries have been made for monthly adjustments. In the adjustments column the Expense Accounts are debited and the Reserve Accounts are credited, thus:

```
Depreciation
    Reserve Depreciation.
Loss on Bad Debts
        Reserve for Doubtful Accounts
```

These amounts are then extended into the other columns of the working sheet. Both debits and credits are carried over into the Adjusted Trial Balance column. Then the Expense items are carried into the Profit and Loss columns. The Reserves are then extended in the liability column, not because they are liability accounts but because they offset the asset accounts.

## IMPORTANT POINTS IN THIS ASSIGNMENT

The main points of this Assignment may be briefly summarized as follows:
First. The Principle of Adjustment. Fixed assets depreciate, and this depreciation should be adjusted periodically. Losses from doubtful accounts should also be recognized and brought into the accounts by means of adjusting entries. These adjustments provide an equitable distribution of expenses and losses to the period in which they occur.

Second. The asset accounts should be left undisturbed and should always show the original cost. Estimated decreases in asset values should not be credited to asset accounts, but rather to valuation accounts, such as the Reserve for Depreciation and the Reserve for Doubtful Accounts.

Third. These Reserve Accounts will be closed finally into the assets accounts, when the assets are disposed of or when their value is readjusted on the books.
Fourth. The Reserve Accounts may be shown in two ways on the balance sheet.
(a) As deductions from the assets on the asset side.
(b) On the liability side of the balance sheet.

Fifth. These Reserve Accounts are called Valuation Accounts because they must be considered along with the asset accounts in determining the book value of the assets.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 17

The following five practical problems illustrate the principles explained in the assignment. Prepare solutions that will indicate to your instructors that you have thoroly mastered this Assignment. They are similar to situations you must handle in actual accounting practice.

1. Mr. Richards did not adjust his books for the following items. These adjustments were usually made by the auditor at the end of each period. You, as the auditor, are expected to make the adjusting journal entries necessary to bring the items into the ledger at time of closing the nominal accounts, June 30, 1922.

2. (a) When these adjusting entries have been made, will the net profit figures in the Profit and Loss statement be larger or smaller than if they were not made? By how much?
(b) How will the entries affect the balance sheet items, assets, liabilities, and net worth?
3. On January 1, 1921, Mr. Richards paid $\$ 14,000.00$ for the building, $\$ 2,300.00$ for furniture, and $\$ 4,507.50$ for machinery. Since that time Depreciation, shown in Problem 1, has been charged every 6 months. The depreciation charged off on June 30, 1922, is also for a period of six months.
(a) What is the rate of annual depreciation for each of these assets?
(b) What is the credit balance in the Reserve Accounts on June 30, 1922 ?
4. Mr. Williams bought machines for $\$ 13,000.00$ on January 1, 1912. He estimated that the machines would last 10 years, with a probable scrap value of $\$ 1,000.00$.

On January 1, 1922, he sold the machines for $\$ 1,200.00$. Show the following.
(a) Machines Account on January 1, 1922, after it is closed.
(b) Reserve for Depreciation Account after it is closed.
(c) How will you handle the $\$ 200.00$ excess received from the sale of the machines.
5. The following depreciation schedule gives you a list of the assets in Mr. Robert's business for which he is providing depreciation. The two columns, headed "Rate" and "Annual Charge," are to be filled out and a list of the amounts sent in.
(a) Determine the amounts that should go in the two columns.
(b) Set up the adjusting journal entries as of December 31, 1922.

Depreciation Schedule

| Dat Purch |  | Items | Units | Original | $\left\|\begin{array}{c}\text { Estimated } \\ \text { Life } \\ \text { (Years) }\end{array}\right\|$ |  | Total Deprecia- tion | Rate | Annual <br> Charge |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1922 |  |  |  |  |  |  |  |  |  |
| Jan. | 15 | Store-Brick | 1 | \$25,000 00 | 60 | \$1,000,00 | \$24,000 00 |  |  |
| Jan. | 15 | Warehouse-Concrete | 1 | 8,000 00 | 75 | None | 8,000 00 |  |  |
| Jan. | 15 | Garage-Stone | 1 | 1,70000 | 75 | 20000 | 1,50000 |  |  |
| Jan. | 15 | Shed-Frame | 1 | 75000 | 15 | None | 75000 |  |  |
| Feb. | 1 | Stable-Sheet Metal and Frame | 1 | 2,00000 | 20 | None | 2,00000 |  |  |
| Feb. | 1 | Office Furniture | . | 3,600,00 | 12 | 60000 | 3,00000 |  |  |
| Feb. | 1 | Store Equipment | . | 9,300 00 | 10 | 50000 | 8,80000 |  |  |
| Mar. | 15 | Gas Engines | 2 | 1,20000 | 25 | 10000 | 1,10000 |  |  |
| Apr. | 1 | Wagons | 3 | 38500 | 18 | None | 38500 |  |  |
| Apr. | 5 | Horses | 7 | 91000 | 7 | None | 91000 |  |  |
| Apr. | 5 | Trucks | 5 | 18,000,00 | 5 | 1,000 00 | 17,000,00 |  |  |

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

Assig̉nment 18

## PARTNERSHIP ACCOUNTING

FORMATION AND OPERATION

T IS a self-evident fact, during these times when the entire business world is readjusting itself to a normal basis, that anyone who wants to rise above the rank and file in any profession or business not only requires ability, but must avail himself of every possible assistance to qualify himself for the work he hopes and expects to accomplish.

GEO. H. HESS, JR., Comptroller<br>Great Northern Railway Company

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

```
    1. The Balance Sheet
    2. The Profit and Loss Statement
    3. The General Ledger
    4. Closing the Ledger
    5. The Journal
    6. Closing the Ledger by Journal Entry
    7. The Cash Journal
    8. Merchandise Records-The Purchase and Sales Journals
    9. Subdivision of the Ledger
    10. Columnization
    11. Promissory Notes
    12. Drafts, Acceptances, and Bills of Lading
    13. Auxiliary Cash Records
    14. Other Auxiliary Books and Business Papers
    15. Finding, Correcting, and Preventing of Errors
    16. Accrued and Deferred Items
    17. Depreciation and Uncollectible Accounts
    18. Partnership Accounting-Formation-Operation
    19. Partnership Accounting-Dissolution Problems-Joint
        Ventures
    20. Corporation Accounting-Formation-Operation
    21. Corporation Accounting-Reorganizations-Mergers
    22. The Voucher System
    23. Factory Accounting-Manufacturing Statement
    24. Factory Accounting-Perpetual Inventory-Cost Sheets
    25. Classification of Accounts
    26. Single Entry
    2%. Accounting for Nontrading Concerns
    28. Agency Accounts-Branches-Consignments
    29. Comparative Statements
    30. Analysis of Financial Statements-General Review
```


## PARTNERSHIP ACCOUNTING

## FORMATION AND OPERATION

The accounting procedure presented in the preceding assignments has been applied specifically to a business owned by a single individual, ordinarily known as a sole proprietorship. This procedure has dealt primarily with operating records and statements and applies pretty generally also with concerns owned by more than one person.

Partnerships, however, require extra consideration, because special accounting problems arise in connection with capital accounts. For example, Mr. Green, who owns a business, sells out and forms a partnership with Mr. White. Instead of having only one Capital Account, as was the case previously when Mr. Green was the sole proprietor of a business, there are now two Capital Accounts, one for each partner.

Assume that when the partnership is formed, each partner invests $\$ 10,000.00$. We will credit $\$ 10,000.00$ to each partner's account, instead of crediting the total $\$ 20,000.00$ to one capital account. As each partner makes withdrawals, his account is debited. Sometimes the charge is made to a drawing account instead of the Capital Account. When he adds to his investment, his Capital Account is credited. Numerous adjustments must be made in the Capital or Drawing accounts for profits or losses, interest on investment and withdrawals, and similar transactions that arise during the operation of the partnership. Accounting problems for partnerships thus involve mainly the partner's capital accounts, or special subsidiary accounts.

In order to handle these problems correctly, the accountant should be familiar with partnership organization and operation. First of all he should know what a partnership is and how it is formed.

Partnership Based on Contract. A partnership consists of an agreement or contract between two or more persons, to carry on a certain business. Chancellor Kent has defined a partnership as a

> "relation resulting from a contract of two or more competent persons who place their money, effects, labor, and skill, or some one or all of them, in lawful commerce or business, and who divide the losses or profits in certain proportions."

This partnership contract may be oral or written. If written it should be properly signed by all the partners. It is usually desirable to have the contract in writing, since the partnership may continue longer than a year, in which case a mere oral agreement would not be enforceable under the statute of frauds. Moreover a verbal agreement may lead to disputes among partners.

It is generally desirable to have the partnership contract drawn up by an attorney and reviewed by an accountant who is well versed in partnership law. This contract is commonly called the Articles of Agreement.

Articles of Agreement an Aid to the Accountant. If the Articles of Agreement are properly drawn up, they will contain certain clauses which will simplify many problems of partnership accounting. The contract should specify, in every case, the following:

1. The name, location, and nature of the business.
2. The length of time during which the partnership is to operate; otherwise, the agreement holds indefinitely or as limited by law.
3. The duties and powers of each partner and the time to be devoted to the business. If these points are not specifically covered, there will be many opportunities for dispute. For example, in common law, each partner has the right to sign checks, drafts, acceptances, or any other contract, using the name of the firm. Unless these powers are restricted, one partner may easily take advantage of his rights, to the detriment of another member.
4. The amount of capital to be contributed by each partner, with a time limit for its payment. All property, other than cash, should be carefully valued, and the value agreed upon should be made a part of the articles of agreement.
5. Whether interest is to be allowed on capital. If this is not specified, interest is not to be credited to partners, even tho the investment of one is much greater than others. If interest is to be allowed the partners, but no rate is mentioned, the legal rate applies.
6. The basis on which profits and losses are to be shared. If nothing is said on this point, profits and losses will be shared equally, even tho the investment of one partner is greater than that of another. If the partnership agreement specifies how profits are to be divided, but says nothing regarding the sharing of losses, the same basis will prevail for sharing losses as for sharing profits.
7. The conditions under which withdrawals may be made, either in merchandise or in cash. If the articles of agreement are silent on this point, interest is not charged on withdrawals, as such items are considered personal charges withdrawn in anticipation of profit. If such withdrawals become excessive, as a matter of equity, the courts will often require interest to be charged, but ordinarily the principle given above will stand.
8. The salaries or commissions to be allowed each partner. Otherwise, the partners are not entitled to specific compensation for their services.
9. The method of keeping the books and special points regarding the accounts. For example, whether they shall be open to inspection by all the partners, when the books are to be closed, annually or semiannually, etc.
10. Provision for discontinuing the partnership in case of a voluntary dissolution, or in case of the death of one of the partners. If this point is not specifically covered, the estate of a deceased partner is that of his interest at date of death. This may make it necessary to take an inventory and close the books as of that date, which sometimes becomes a rather complicated matter.
11. Provision in regard to admitting a new partner, especially the treatment of goodwill under such circumstances.
These various articles of agreement should be carefully studied by the accountant, so that he will be able to make the opening entries correctly.

## OPENING ENTRIES FOR A NEWLY ORGANIZED PARTNERSHIP

There are, in general, three conditions under which a partnership can come into existence, and each of these conditions determines what entries are to be made on the books.

1. When each partner makes an original investment.
2. When a partner is admitted to an established business.
3. When two or more operating businesses unite to form a partnership.
4. When Each Partner Makes an Original Investment. A new business may be formed by two or more parties, neither of whom has been in business immediately preceding, i.e., there is no established business, no store, and no stock of goods.

To illustrate, assume that Mr. Green and Mr. White each invest \$10,000.00 in the opening of a firm under the name of Green \& White. Your first entry in the journal will be as follows:

```
June 1, 1921 Cash . .. . . . . . . . . ..... $20,000.00 $10,000.00
B. White, Capital . . . . . 10,000.00
To record the original in-
vestments of Messrs. A.
Green and B. White, as per
their agreement, dated June
1, }1920
```

The $\$ 20,000.00$ should also be entered in the cash book, to provide a complete record of original investment. The debit in the journal and the credits in the cash book are checked $(\sqrt{ })$ to prevent duplicate posting.

As the business begins, liabilities, of course, will be incurred. The Cash Account will be affected by sales and purchases and the other ordinary transactions of a going business.
2. When Partner Is Admitted to Established Business. Mr. Brown has been in business for five years. He has a net worth or capital at the present time of $\$ 10,000.00$. His business is growing, and so he looks about for a partner with additional capital. He finally consents to reorganize his business into a partnership and admits Mr. Black. Mr. Black invests $\$ 12,-$ 000.00 . The two partners sign an agreement which specifies that Mr. Black shall be admitted as an equal partner. This means that Mr. Black is to pay in $\$ 12,000.00$ for an interest equal to Mr. Brown's. The total investment is now $\$ 22,000.00$, which must be divided equally between the two partners.

The $\$ 2,000.00$ excess is a premium or bonus which Mr. Black pays for the privilege of being admitted into an established business. This $\$ 2,000.00$ premium is for the goodwill. The correct entries for recording this transaction are:

| June 30,1921 Cash | Mr. Black, Capital..... $\$ 12,000.00$ |
| ---: | :--- |
|  |  |
|  | Cash invested by Mr. Black |
|  | for one-half interest in the |
|  | business of Mr. Brown, as |
|  | per agreement dated June |
|  | $30,1921$. |

Mr. Black, Capital
Mr. Brown, Capital..... $\$ 1,000.00$
To equalize the Capital Accounts
of the two partners, due to the
realization by Mr. Brown of one-
half of the goodwill for which
Mr. Black paid $\$ 2,000.00$

It is very necessary in a transaction of this kind to analyze the facts carefully in order to get at the true effect in the debit and credit elements. The facts in this case are as follows:
(a) Mr. Black pays into the business.......................................... $\$ 12,000.00$
(b) Mr. Brown has an investment from past activities of.... $10,000.00$

Total Invested Capital .................................................... $\$ 22,000.00$
Share of Mr. Black in new enterprise........................................ $\$ 11,000.00$
Share of Mr. Brown in new enterprise.............................. 11,000.00
Total Capital as above.................................................... $\$ 22,000.00$
The essential fact in this case is the true invested capital in the new enterprise. It is true that Mr. Brown requires an investment on the part of Mr. Black of $\$ 2,000.00$ in excess of his former net worth, but by the terms of the agreement Mr. Black retains a one-half interest in this excess over Mr. Brown's former capital, namely $\$ 1,000.00$. The amount of goodwill realized by Mr. Brown, therefore, is $\$ 1,000.00$ which is credited to his Capital Account. The business receives the benefit, however, of the full $\$ 12,000.00$ paid in by Mr. Black; for this reason there is no record made of the $\$ 2,000.00$ goodwill.

Had the $\$ 2,000.00$ been paid to Mr. Brown on the side, as a bonus, and only the $\$ 10,000.00$ put into the business, the new partnership would not have received the benefit of the excess paid by Mr. Black for a half interest, but Mr. Brown would have benefited personally for the full amount. Accordingly, it makes considerable difference whether the "premium" for admittance into a partnership is paid directly to the party already in the business, or whether it is paid into the business itself. The articles of agreement, as well as the opening entry, should make this point clear.
3. When Two or More Proprietorship Businesses Form a Partnership. A situation of this kind requires two sets of transactions.

1. Closing entries on the books of the old businesses.
2. Opening entries on the books of the new partnership.

The property of each business is first valued, including goodwill in each case, and the old asset and the liability accounts are then debited and credited with the respective amounts of each concern on the books of the new concern. Each member of the new partnership is credited with the net value of his investment as agreed upon in the contract. In case two partnerships combine, or if a single proprietorship and a partnership combine, the former partnership relations must first be dissolved.

As an illustration, assume that Mr. Klein and Mr. Newton have agreed to form a partnership, each constituting a sole proprietorship. The two following balance sheets show how each of these businesses stand at the date of forming the partnership. You will note that neither concern has controlling accounts for customers' and creditors' accounts. It is agreed that in the new business, controlling accounts should be used.

Mr. Klein
BALANCE SHEET, Dec. 31, 1920


BALANCE SHEET, Dec. 31, 1920

| Assets <br> Current Assets |  | Liabilities and Capital <br> Current |  |
| :---: | :---: | :---: | :---: |
| Cash . . . . . \$ 325.00 |  | Creditors: |  |
| Customers: |  | F. F. Poy . . \$ 220.00 |  |
| C. B. Dillon. 400.00 |  | L. L. Lee . . 545.00 |  |
| E. R. Ray - 490.00 |  | Notes Payable. . 900.00 | \$1,665.00 |
| Notes Receivable 450.00 |  |  |  |
| Mdse. Inventory 2,650.00 | \$4,315.00 | L. N. Newton, capital | 3,700.00 |
| Fixed Assets |  |  |  |
| Furn. \& Fixt.. | 1,050.00 |  |  |
|  | \$5,365.00 |  | \$5,365.00 |

The agreement states that each partner is to pay into the business enough cash to bring his capital up to $\$ 5,000.00$. A new set of books is to be opened for the partnership under the firm name of Newton \& Klein.

The procedure called for in this case is:

1. Closing entries on the books of Klein.
2. Closing entries on the books of Newton.
3. The opening journal entries for the new firm of Newton \& Klein, creating controlling accounts for both the accounts receivable and accounts payable subsidiary ledger.
4. Entries Closing the Books of Mr. Klein. The following compound journal entry will close the books of Mr. Klein's business. Assets are credited and liabilities and capital are debited:
Notes Payable
J. J. Watts
$\$ 1,500.00$
W. R. Cobb 250.00
Mr. Klein Capital
225.00

. . . . . . . . . . \$ 650.00
Merchandise. . . . . . . . . . . . . . . . . . . $3,100.00$
Furniture.
800.00
Notes Receivable 740.00
L. T. Gray 200.00
E. R. Mix 485.00
For closing the books as a result of the transfer of title of all property and the assumption of all liabilities by Newton \& Klein.
5. Closing Entries on the Books of Mr. Newton. The following entries will close the books of Mr. Newton:

| Notes Payable . |  |
| :---: | :---: |
| F. F. Foy . . |  |
| L. L. Lee |  |
| Mr. Newton Capital |  |
| Cash | \$ 325.00 |
| Merchandise. | 2,650.00 |
| Furniture. | 1,050.00 |
| Notes Receivable | 450.00 |
| C. B. Dillon | 400.00 |
| E. R. Ray. . | 490.00 |
| For closing the books as a result of the trans- |  |
| fer of title of all property and the assumption |  |
| of all liabilities by Newton \& Kline. |  |

In making these entries compound journal entries have been used in order to save time and space. Compound journal entries are those that show debits and credits affecting more than two accounts.
3. Opening Entries for the New Firm, Newton \& Klein. In making the opening entries the assets and liabilities of the two concerns will be shown in total as determined for cash:

| Cash (Klein) |
| :--- |
| Cash (Newton) | . . . . . . . . . . . . . . . . . . . . $\$$| $\$ 650.00$ |
| ---: |
| 325.00 |
| Total . . . . . . . . . . . . . . . . . . . $\$ 975.00$ |

The complete opening entry for the journal is as follows:


Equalizing the Partners' Capital Accounts. According to the agreement of Mr. Newton and Mr. Klein, each partner is supposed to pay in enough cash to bring his capital up to $\$ 5,000.00$. Klein, therefore, must
pay in $\$ 1,000.00$ and Newton $\$ 1,300.00$. When this money is paid in, the accounts will be affected thus:

$$
\begin{aligned}
& \text { Cash j . . . . . . . . . . . . . . . . . . . . . } \$ 2,300.00 \\
& \text { I. J. Klein } \\
& \$ 1,000.00 \\
& \text { L. M. Newton } \\
& \text { 1,300.00 } \\
& \text { For cash received from partners to equalize their } \\
& \text { Capital Accounts according to articles of agree- } \\
& \text { ment. }
\end{aligned}
$$

## PROCEDURE FOR ADJUSTMENTS BETWEEN PARTNERS

After a partnership is formed, the transactions which it has with outside parties are practically the same as those of an individual proprietor. Accordingly, the partnership accounts and books for recording such transactions would be the same as for the sole proprietorship. There are, however, some transactions or adjustments within the business and among the partners themselves that give rise to new accounts and entries, which are not required in a sole proprietorship. One of the most important of these adjustments is the distribution of profits and losses.

Distribution of Profits and Losses. As has already been stated, there should be some sort of basis specified in the Articles of Agreement for the distribution of net profits. If, however, no method of distribution is agreed upon, the law provides that profits shall be divided equally among the partners, regardless of the amounts invested. This seems to be a just and fair method, because some partners who invest less money than others may contribute a larger amount of skill, executive ability, or financial resources, which adds to the power of the organization. For this reason you will find partnerships in which the partners share profits equally, even tho their investments are unequal.

Distribution Based on Capital Investment. If the Articles of Agreement specify that profits are to be distributed to the partners according to their investment, it should be clearly stated whether original investment, net investment, or average investment is meant.

## 1. Original Investment

If partner A puts $\$ 2,000.00$ in a firm at the time of starting a business and partner B puts in $\$ 1,000.00$, these amounts are considered their original investment. If profits are to be divided according to original investment, A will receive twice as much profit as B. This method of distributing profits is satisfactory, provided A and B do not increase their investments from time to time, or withdraw part of their original capital for personal use. In such a case, it seems more fair to distribute profits on the basis of net investment, or average investment.

## 2. Net Investment

Assume that A and B started their partnership in 1919, A's original investment being $\$ 2,000.00$ and B's $\$ 1,000.00$. Both partners made several additions to their investment and on several occasions withdrew small amounts for their personal use, with the result that on December 31, 1920, their capital accounts showed the following credit balances:

$$
\begin{aligned}
& \text { A's Capital . . . . . . . . . . . . . . . . } \$ 3,000.00 \\
& \text { B's Capital . . . . . . . . . . . . . . . . 4,000.00 }
\end{aligned}
$$

These amounts are spoken of as their net investment.

On December 31, 1920, when profits are distributed to the partners, how much is given to $A$, how much to $B$, on the basis of net investment?
$B$ has $1 / 3$ more net investment than $A$, therefore he will receive $1 / 3$ more profit. In other words, for every $\$ 3$ that A receives B will receive $\$ 4$. A's share is $3 / 7$ and B's is $4 / 7$. Assuming the net profit to be $\$ 2,100.00$, A will receive $\$ 900.00$ and B will receive $\$ 1,200.00$.

Altho profits are often distributed on the basis of net investment, nevertheless, this method has the disadvantage of not considering the length of time the capital has remained within the business. In other words, the numerous additions and withdrawals of capital should be considered. It is not sufficient to consider merely the net investment; it is better to figure the average investment.

## 3. Average Investment

To illustrate how profits are distributed on the basis of average investments, take the following actual situation from business. The amount of capital contributed by each partner and the length of time it is used in the business is determined on the basis of dollars invested for one month. This method is called the "dollar month" basis.
M. N. Overman and N. O. Preston formed a partnership on January 1, 1920. Overman contributed assets valued at $\$ 12,000.00$ and Preston contributed cash to the amount of $\$ 13,000.00$. Overman made an additional investment of $\$ 2,000.00$ on March 1, and $\$ 3,000.00$ on August 1. On June 1, Overman withdrew $\$ 2,000.00$ from the business. On March 1, Preston made an additional investment of $\$ 2,000.00$ and on July 1, $\$ 5,000.00$. On August 1, Preston withdrew $\$ 5,000.00$. The net profits for the year amount to $\$ 6,000.00$. Based on average investment of the length of time each partner's capital remained invested, what is each partner's share of the profits?

M. N. Overman's Share

Step One-Determine the dollar months of investment.

| Additions to Capital | Months in Business | Dollar Months |  |
| :--- | ---: | ---: | :--- |
| Jan. 1. $\$ 12,000.00$ | 12 | $\$ 144,000.00$ |  |
| Mar. 1. | $2,000.00$ | 10 | $20,000.00$ |
| Aug. 1. | $3,000.00$ | 5 | $15,000.00$ |
|  |  |  |  |
|  |  | Total | . . . . . . $\$ 179,000.00$ |

Less Withdrawals from Capital: June 1. $\$ 2,000.00 \quad 7 \quad 14,000.00$ Net Dollar Months of Investment . . . . . . . . . . . . . $\$ 165,000.00$
Step Two-Calculate the average investment. $\$ 165,000.00 \div 12=\$ 13,750.00$, Overman's Average Investment.

## N. O. Preston's Share

Step One-Determine the dollar months of investment.


Assignment 18, Page 8

Step Two-Calculate the average investment.

$$
\$ 181,000.00 \div 12=\$ 15,083.34 \text {, Preston's Average Investment. }
$$

Summary of Partners' Average Investment.

| Overman's Average Investment | \$13,750.00 |
| :---: | :---: |
| Preston's Average Investment | 15,083.34 |
|  | \$28,833.34 |

Each Partner's Share of Profits.
(a) Overman's share of profits equals: $\frac{\$ 13,750.00}{\$ 28,833.34}=47.7 \%$ \$28,833.34
(b) Preston's share of profits equals:
\$15,083.34
$\overline{\$ 28,833.34}=52.3 \%$
Percentage of Net Profits.
$47.7 \%$ of $\$ 6,000.00=\$ 2,862.00$ Overman's share. $52.3 \%$ of $\$ 6,000.00=3,138.00$ Preston's share.
$100 \% \quad \$ 6,000.00$ Net Profit
Transfer of Net Profits to Capital Accounts.
Profit and Loss (Net Profit) . . . . . . . . . . . $\$ 6,000.00$
M. V. Overman, Capital . . . . . . . . . . . . $\$ 2,862.00$
N. O. Preston, Capital . . . . . . . . . . . . . 3,138.00
To distribute net profit to the respective part-
ner's accounts, on the basis of average invest-
ment, as per Agreement.

The following accounts show each partner's capital as it stood on January 1,1921 , after posting the above journal entry:
M. N. Overman, Capital


Need of Drawing Accounts for Partners. It is essential that temporary additions or withdrawals of capital by partners be recorded in Drawing

Accounts, owing to the fact that interest on capital and drawing is calculated separately. Moreover, partners are often allowed salaries which they leave in the business temporarily, drawing on the account as needed.

Any temporary withdrawals of cash or other property from the business should be debited to the Drawing Account of the partner making the withdrawals. The Drawing Account is credited with his salaries earned and sometimes with any temporary advances made to the firm. At the close of a fiscal year, the balance of a partner's Drawing Account is closed into his Capital Account unless otherwise specified in the articles of agreement. It should, of course, be stated in the partnership agreement just how much each partner may be allowed to draw out of the business during a given period.

If a partner advances money to the business, the loan may be credited to a partner's Loan Account instead of to his Drawing Account, if he prefers, and the other partners approve. In such a case, the Loan Account will draw interest at the legal rate unless it is otherwise agreed.

Salaries Best Handled Thru Drawing Accounts. Where partners receive salaries, it is presumed that they will not permit them to remain in the business for any great length of time after they are due and payable. Accordingly, no provision is made in most cases for allowing interest on Drawing Account balances, representing undrawn salaries. As salaries are earned, an entry should be made, either weekly or monthly, crediting the partner's Drawing Account and debiting general or administrative expense, as follows:


Since the Drawing Accounts have been credited periodically with the salaries as they are earned, the Drawing Accounts are debited as the partners receive cash for the amounts owing to them. Thus, if A draws cash, $\$ 50.00$ on account of his salary, whether before the end of the month in which it is earned, or afterwards, his Drawing Account is debited thru the cash disbursements book.

The partnership agreement should either fix a limit to the amount that may be drawn by any partner in anticipation of profits or make provision for charging interest on withdrawals to prevent any partner from drawing a large enough amount from the business to hamper its financial transactions.

Interest on Capital and Drawings. If all partners in a business invested the same amount of capital and shared profits or losses in proportion to their capital, there would be no necessity for considering interest on capital. Similarly, if all partners received equal salaries and withdrew the same amounts from the business on the same days for personal use, there would be no necessity of charging partners with interest on their Drawing Accounts. Even with unequal salaries it would not be necessary to figure interest on Drawing Accounts if the salaries were actually drawn as earned instead of being permitted to remain as credits to their Drawing Accounts.

Assignment 18, Page 10

These ideal conditions, however, are seldom found. It is necessary, therefore, that some accounting method be devised to adjust the financial affairs so that each partner will receive his fair income on the capital actually invested or left in the business, as well as receiving his share of the profits.

Since no interest is allowed on capital of partners, unless so provided in the partnership agreement, this point must be determined by examining the agreement.

There are two steps after it is determined that interest is so provided for.

1. Calculate the amount of interest.
2. Determine the nature of the entry.

Calculation of Interest on Capital. The interest may be calculated in accordance with the terms of the agreement, on the basis of:

1. Original investment.
2. Net investment.
3. Average investment.

The last method is the most equitable. When this method is used, it is not necessary to calculate interest on drawings separately, as such drawings and the dates thereof are considered in determining the average investment.

The calculation of the amount of interest on original investment or net investment presents no difficulties, as it is merely a matter of a specific amount at a given rate for a given time (usually one year).

Calculating Interest on Average Investment. In calculating interest on the average investment, if one carries out every step that might be expressed, there may be a great many separate problems in interest. This is especially true in case a partner has made many additions or withdrawals of capital during the period. Each addition or withdrawal must be considered separately from the date it is entered to the close of the year.

To illustrate, take the following ledger accounts showing the balances at the close of a year in which interest is to be calculated on the average investment at 6 per cent.

> J. E. Regan, Capital


> J. E. Regan, Drawina


## F. L. Sulluvan, Capital


F. L. Sullivan, Drawing

C. E. Murphy, Capital

C. E. Murphy, Drawing

| April $\|1\|$ |  | $\$ 200\|00\|$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

The calculation of interest on each of these accounts is expressed as follows:

| J. E. Regan |  |
| :---: | :---: |
| \$3,000, 1 year at 6\% ............................... | \$180.00 |
| Less \$200, nine months at 6\%............ | \$9.00 |
| 100, two months at $6 \%$...-.-.-- | $1.00 \quad 10.00$ |
|  | \$170.00 |
| F. L. Sullivan |  |
| \$3,000, 1 year at 6\%............................. | . $\$ 180.00$ |
| Less $\$ 100$, eight months at $6 \%$ $\qquad$ 100 , two months at $6 \%$ $\qquad$ | $\begin{array}{ll} \$ 4.00 \\ 1.00 & 5.00 \end{array}$ |
|  | \$175.00 |
| C. E. Murphy |  |
| \$3,000, 1 year at $6 \%$.................................................... | $\begin{array}{r} \text {...... } \quad 9.00 \\ -. . .-\quad 9.00 \end{array}$ |
|  | \$171.00 |

Entries for the Interest on Investment. Having calculated the amount of interest on investment, whether determined on a basis of original, net, or average investment, your next step is to enter it on the books. There are several different methods of recording interest on investment, any one of them being generally satisfactory.

Since interest on investment is not an operation expense, it is advocated by some accountants that an account called "Interest on Capital" be charged and the respective Drawing Accounts credited. Others claim that interest on the investments of partners is the most equitable way of distributing profits in order to recognize the varying amount of capital risk. Accordingly, interest allowed on capital is charged directly to the Profit and Loss Account. By this method there is no chance to confuse the charge with any expenses of conducting the business.

[^6]Using the latter method for illustrative purposes, the entries for recording interest allowed to Regan, Sullivan, and Murphy are as follows:
Profit and Loss
$\$ 516.00$


The effect of this entry on the financial relationships of the partners may be seen by making an equal distribution of the $\$ 516.00$ charged to Profit and Loss. This loss would be distributed equally among the partners, by the following entry:

$$
\begin{aligned}
& \text { J. E. Regan, Drawing Account . . . . . . . . . . . . . } \$ 172.00 \\
& \text { F. L. Sullivan, Drawing Account } \\
& 172.00 \\
& \text { C. E. Murphy, Drawing Account } \\
& 172.00 \\
& \text { Profit and Loss } \\
& \$ 516.00
\end{aligned}
$$

After posting both the above entries to the partners' Drawing Accounts, the accounts would appear as follows:
J. E. Regan, Drawing

| $\mid$ Profit and Loss | $\$ 172\|00\|$ | Int. on Investment | $\$ 170\|00\|$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

F. L. Sullivan, Drawing

| $\mid$ | Profit and Loss | $\$ 172\|00\|$ | Int. on Investment | $\$ 175\|00\|$ |
| :--- | :--- | :--- | :--- | :--- |

C. E. Murphy, Drawing

|  | Profit and Loss | $\$ 172$ | 00 |  | Int. on Investment |
| :--- | :--- | :--- | :--- | :--- | :--- |

It appears that Regan loses $\$ 2$, Murphy loses $\$ 1$, and Sullivan gains $\$ 3$. The same net result may be shown more briefly by the following entry, affecting only the drawing accounts:

$$
\begin{aligned}
& \text { J. E. Regan, Drawing ........................ } \$ 2.00 \\
& \text { C. . . Murphy, Drawing } \\
& \text { F. L. Sullivan, Drawing . . ................. } 1.00
\end{aligned}
$$

Other Methods of Calculating Interest. When the number of entries in a partner's Drawing Account are numerous, the calculation of interest becomes a rather laborious process if carried out in detail as in the preceding illustration. For this reason, some substitute methods are in use. A very common method is the "dollar month" basis, similar to that discussed in connection with the distribution of profits or losses. The "average date" method is another in frequent use, an explanation of which will be found in any good commercial arithmetic.

Partnership Insurance Account. A partnership often insures the lives of the partners. It does this because it realizes that the death of a member of the firm may cause considerable inconvenience and expense, and in some cases a great loss to the business. Accordingly, a life insurance policy is taken out, payable to the remaining partners upon the death of any one of them. The policy may be a blanket policy, insuring all the partners, or a separate policy for each partner.

In any case, the premium of such a policy is paid out of the partnership cash. At the end of the third year-in some cases at the end of the second year-the policy has a cash surrender value which is specifically stated in the policy and increases in value each year. That is, if the partnership should decide to drop the policy at any time after the second or third year, the insurance company agrees to refund a certain amount of cash on the policy.

The important point to consider is this: Just as soon as the policy begins to have a cash surrender value, this amount should be brought on the books as an asset. The cash surrender value is like an accounts receivable, since it is an account due the company. For the first two or three years, however, until the policy has a realizable cash value, the premium should be charged off as an ordinary operating expense.

A Typical Case. The firm of Adams \& Smith took out a $\$ 2,000.00$ policy on January 2, 1918, for each of the partners. The annual premium amounts to $\$ 120.00$.

When the policies were taken out and the first premiums were paid, the following entry was made in the cash book and posted to a Partnership Insurance Expense Account.

## CASH DISBURSEMENTS BOOK

| Date | L.F. | Account to Be Debited | Details | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. | 2 |  | Partnership Insurance | $\$ 120$ | 00 |

Partnership Insurance (Expense Account)

| Jan. | 2 Cash |  | $\$ 120\|00\| \mid$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

At the end of the year 1919 when the books are closed, the Partnership Insurance Account is closed into the Profit and Loss Account, since the insurance premiums have been an expense for the year. The premiums for 1920 and 1921 are handled in exactly the same way, namely, as general or administrative expense for the period.

On January 2, 1922, however, the policy has a cash surrender value of $\$ 100.00$. In other words, a new asset has come into existence and, therefore, should be recognized on the books.

The accountant accordingly makes the following adjusting journal entry:

## JOURNAL

| $\begin{aligned} & 1922 \\ & \text { Jan. } \end{aligned}$ | 2 | ```Life Insurance, Cash Value Profit and Loss To recori the cash surrender value of policies Nos. 171625-6``` | $\$ 10000$ | \$100 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |

Assignment 18, Page 14

When this debit is posted a new asset account, entitled "Life Insurance, Cash Value" comes into the books and will be included among current assets on the balance sheet.

On January 2, 1923, when another premium of $\$ 120.00$ is paid, the entry in the cash book should be:

CASH DISBURSEMENT BOOK

| Date | L.F. | Accounts to Be Debited | Details | Totals |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1923 \\ & \text { Jan. } \end{aligned}$ | 2 |  | \$8000 |  |
|  |  | Administrative Expense | 3000 |  |

An important question arises here: "Why is this $\$ 120.00$ premium distributed, $\$ 90.00$ to Life Insurance Cash Value and $\$ 30.00$ to Administrative expense?"

This distribution is made for the following reason: The cash surrender value at the end of 1923 will be $\$ 190.00$, as stated in the policies. As we already have $\$ 100.00$ set up in the Life Insurance Cash Value Account, we simply charge enough to the Asset Account, namely $\$ 90.00$, to bring the balance up to the proper amount, $\$ 190.00$. The balance of $\$ 30.00$ should be charged off as a regular expense. If the total premium of $\$ 120.00$ were charged to the Asset Account, the asset would be overstated.

In order, therefore, to avoid overstating the Life Insurance Cash Value asset, only $\$ 90.00$ is charged to it. Accountants are usually conservative and rightly so. They hesitate to overstate the value of any asset. The principle illustrated here is applicable to many other accounting problems, and should be thoroly grasped.

In case one of the partners dies while such a policy is in force, the money received from the insurance company will be debited to Cash. Enough is credited to the Partnership Insurance Account to close it, and the balance is divided among the surviving partners on the same basis as profits.

If the insurance policy does not specify that the money is payable to the surviving partners, it may be correctly considered as payable to the partnership. Otherwise the estate of the deceased will share the insurance money with the surviving partners as stated, in the policies. This, however, is usually not the intention at the time of taking out the policy.

## IMPORTANT POINTS IN THIS ASSIGNMENT

In this Assignment you have become familiar with the accounting procedure for partnerships, especially on two main points:

## 1. The Formation

## 2. The Operation

When a partnership is formed, several important facts must be considered by the accountant:

First-The contract or agreement (Note standard form in Figure 1).

1. The amounts of cash or other assets invested.
2. The distribution of profits and losses.
3. Interest on investment.
4. Interest on withdrawals, etc.

Second-The conditions under which the partnership is organized.

1. When each partner makes an original investment.
2. When a partner is admitted to an established business.
3. When two or more proprietorships form a partnership.

Third-1. Closing entries on books of concerns forming a partnership.
2. Opening entries on books of new partnership.

When the newly formed partnership begins to operate, adjustments should be made for the following:

First-Distribution of profits and losses.

1. Based on original investment.
2. Based on net investment.
3. Based on average investment (dollar-month method).

Second-Use of drawing accounts.

1. For withdrawals.
2. Salaries.

Third-Adjustments for interest on capital and drawings.

1. Calculation of interest.
2. Entry of interest in the accounts.

Fourth-Adjustment of the Partnership Insurance Account to carry the Cash Surrender Value as an asset.

In your next assignment you will learn how a partnership is dissolved, and what entries are necessary on the books. Special forms of partnerships will also be presented such as Joint Ventures.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 18

After reading the assignment carefully, prepare solutions for all the following problems. The first five problems give you an opportunity of handling the accounts for one firm, just as effectively as if you were working right in their office.

1. Prepare the opening journal entries at the organization of the new firm, Stone \& Thomas. Use the data contained in the Articles of Agreement as shown on the next page with this additional information: Mr. Stone's books showed accounts due him as follows: H. R. Smith, $\$ 354.00$; M. T. Krause, $\$ 1,200.00$; R. C. Mentor, $\$ 2,000.00$; B. C. Thom, $\$ 310.00$. He owed Diemer Hardware Company $\$ 1,000.00$; Brown Mercantile Company, $\$ 800.00$; National Clothing Company, $\$ 550.00$. Mr. Thomas' books showed accounts due as follows: Mr. R. Blake, $\$ 140.00$; R. S. Truax, $\$ 850.00$; B. M. Stein, $\$ 750.00$; B. A. Kuper, $\$ 600.00$. These accounts were outstanding: A. M. Bowen, $\$ 1,000.00$; D. C. Coulter, $\$ 150.00$; 0. S. Ellis, $\$ 50.00$.
2. Mr. Stone receives his monthly allowance of $\$ 150.00$. In addition, he withdraws on February 15, $\$ 750.00$ in cash for his personal use. This is returned with interest, June 1. Set up Mr. Stone's Drawing Account as it will appear on June 1. Figure interest on the exact number of days.
3. The net profit of the firm, Stone \& Thomas, is $\$ 6,000.00$ for the year. Show entry to apportion the net profit.
4. The Partnership Insurance Account on the books of A, B \& C has a balance on Jan. 1, 1922, of $\$ 1,360.10$. On December 31, 1922, the cash surrender value amounts to $\$ 1,527.60$. The annual premium for the year 1922, amounting to $\$ 263.50$ is paid January 15. 1922.
5. How much should be charged to the Partnership Insurance Account?
6. How much to the Administrative Expense Account?
7. Profits and losses are shared equally in the partnership of A, B \& C. It is found that interest on the average investment for the year 1921 is as follows: A, $\$ 200.00 ; \mathrm{B}, \$ 300.00 ; \mathrm{C}, \$ 100.00$. Make the necessary journal entries to adjust the interest, (a) When the transaction is carried thru the Profit and Loss Account, (b) using the partners' drawing accounts.

## ARTICLES OF COPARTNERSHIP FOR THE FIPM OF STONE \& TROMAS

AGREEAENT OF COPARTIERSEIP, entered into the ferot day offanuazy 1921 , by and betweensham. Stone of the oity of chicegs state of Refinion, and $\mathcal{Z}$. In. Themas of the oity of Chiciags state of delinais
FIRST The saic parties mutually agree to become partners under the firm nass oristone and thomai in the business of retoling generol merchandice for a period of 10 years from date, their place $8 f^{\circ}$ business to be looated in Chicago, Sllinais.
SECOND: To that end end purpose ira. In. Stone has contributed Cash,
$\$ 3,625.00$, store and Sof $\$ 14,000.00$, Stose 7 uture $\$, 500.00$, Indes enventory, \$12,361.00, accunto Recivable, as listed $3,864.00$ Siabilites asoumed: hotes Paysile $\$ 2,000.00$ accounto Payable, as listed. 2, 350.00, audd.in. Thomas has contributed, Cash, \$8,000.00, Indse. Snventury $\$ 18,560.00$. accounts Recrivable $\$ 2,340.00$, notes Receivable, $\$ 1,800.00$, klelivery Equipment $\$ 1,500.00$, Lialulities aspumed: Kotes Fayable $\$ 1,000.00$, accounts payable $1,200.00$ to be used and employed in comion between them 'for the support and management of the said business to their mutual beneifit and advantage.

THIRD: Said parties agree with each other that each shall devote his whole time, attention, talents, and business capacity to the business of the firm.

FOURTH: Neither of the partners shall become indorser or security in any manner for any other person unless the consent thereto of his copartner shall have been first obtained in miting.

FIFTH: There shall be kept at all times during the continuance or their copartnership perfect, just, and true books of account which shall be accessible to bcth partners at all times.

SIXTH: The books shall be balanced at the close of business on the thirtyfirst day of hecember in each year, and the profits and losses shall be shared equally between said partners.

SEVENTE: Each of the parties may draw from the cash of the firm the sum of onehundred fifty and pro dollars a month, for his own use, the same to be charged on aocount, and neither of them shall take any further sum for his separate use without the consent of the other in writing; any further sum so taken shall draw interest at the rate of 6 per cent, and shall be payable together with the interest due, within - 60 - days after notice in writing given by the other party.

EIGTH: When the firm shall be dissolved all debts shall be paid; a true, just, and final account shall be made, and the balance shall be divided equaliy between the partnerse

Witness our hands and seals this ferst day of fenuary. $192 \%$
In presence
7M. R. Lock


## Partnership Agreement

Figure 1. This form, in addition to giving you a good idea of the exact nature of a partnership agreement, also contains facts and figures which are necessary to the solution of the problems with this assignment

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assiğnment 19 <br> PARTNERSHIP ACCOUNTINGDISSOLUTION PROBLEMS-JOINT VENTURES

$\mathrm{T}^{\mathrm{T}}$ is not amiss to point out that the possession of a good ground work in accountancy is a distinct asset of increasing importance for one desiring to reach important executive positions.
W. S. CARPENTER

Vice-President and Treasurer
E. I. DuPont De Nemours \& Co.

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## PARTNERSHIP ACCOUNTING DISSOLUTION PROBLEMS-JOINT VENTURES

From your study of the preceding assignment you should now be able to handle the books of a partnership, at least as far as its formation and operation are concerned.

But suppose that for some reason or other the firm is dissolved. Could you close the partnership's books correctly and give an intelligent accounting to the partners? Unless you can do this your knowledge of partnership accounting is incomplete. This assignment is intended to give you by way of illustration the fundamental accounting problems that arise at the time of dissolution.

Since a partnership rests upon a contract between individuals, its life is limited. The problem of dissolution must sooner or later be given attention. Disputes may arise, business may be unprofitable, partners may die or withdraw, new partners may be admitted, or the business may find it desirable to incorporate and acquire more capital; any one of these conditions may cause the partnership to be reorganized or cease to exist.

For example, some of the large businesses of to-day originally started as partnerships, but because of the need for additional capital were reorganized or sold. This was true in the case of the Cluett Peabody Company, which operated as a partnership until 1901. The Hart Shaffner Marx company also developed out of a partnership. Kaufman's Department Stores, Inc. of New York grew out of an original partnership. Many other similar cases might be cited.

Perhaps in your own community you will find partnerships that have been reorganized or discontinued for one reason or another. In either case a final settlement was necessary so that each partner might receive his proper share.

To handle properly the problems that usually arise in case of dissolution the accountant should first of all consider three things:

1. The causes of the dissolution.
2. The provisions for dissolution specified in the partnership agreement.
3. The requirements of the partnership law.

Causes of Dissolution. To determine the cause of the dissolution each situation must be analyzed. In one case the partners may agree to dissolve. That is a voluntary dissolution. In another case the creditors may force a dissolution. Such a case would be called an involuntary dissolution. Ordinarily one or more of the following conditions will cause a partnership to dissolve:

1. Withdrawal of a partner.
2. Sale of a partnership or incorporation.
3. Mutual agreement of partners.
(a) Agreement at time of organization as to time partnership is to continue.
(b) Mutual disagreement.
(c) Admission of a new partner.

## INVOLUNTARY

4. Death of a partner.
5. Bankruptcy of partnership or bankruptcy of one of the partners.

Provisions for Dissolution in the Terms of the Agreement. The second important thing to consider is the partnership agreement. This agreement usually makes some provision for dissolution, in some cases more fully than in others. Among other things it may include the following provisions:

1. Time at which the partnership is to terminate.
2. How the assets shall be disposed of upon dissolution.
3. What procedure should be followed when one of the partners dies or withdraws: i.e., shall the business continue after dissolution or shall it cease.
4. What value should be placed on goodwill upon the death or withdrawal of a partner?
The more specific the agreement is on such points, the less difficulty will the accountant have in making the final adjusting entries.

Requirements of Partnership Law. The third element that enters into dissolution problems, especially in the case of liquidation, is the requirements of the law as to who has first claim on the assets. The law usually prescribes that claims on the partnership should be satisfied, in the following order:

1. Creditors' claims to be paid first.
2. Advances or loans by partners to be paid next.
3. Capital repaid to partners.
4. Remaining assets divided among partners in the way profits and losses are divided.

Since the adjusting entries must conform to these legal requirements, it is desirable that the accountant have a reasonably good knowledge of partnership law.

## ENTRIES FOR DISSOLUTION OF PARTNERSHIPS

Naturally, every partnership dissolution presents different conditions; in other words, a different problem. From an accounting viewpoint, however, there are certain features that are more or less common to all
dissolutions. As a result, partnership dissolutions can be classified intu two general groups:
I. Cases in which the business is continued after dissolution.
II. Cases in which the business is liquidated.

The dissolution of a partnership, therefore, does not necessarily mean that the business conducted by it is entirely suspended or closed out. For example, in cases under I, the business is continued, but the ownership is slightly or completely changed. In fact, this is the case in the majority of partnership dissolutions.

First, we shall consider those dissolutions in which liquidation does not take place, which belong to group one.

## 1. Dissolutions Without Liquidation

A partnership may dissolve without liquidation under the following conditions:

1. When a partner withdraws or dies
2. When a new partner is admitted.
3. When a partnership is sold.
4. When a partnership is incorporated.

For each of these cases we shall present an illustration.

1. Partnership Dissolved by the Withdrawal of a Partner. Under this situation one or more partners may withdraw, the others remain, and, reorganizing into a new partnership, proceed with the business operations, as was the case in the following situation.

The partnership of A. Rainey \& Sons is dissolved because the senior partner, A. Rainey, withdraws on June 30, 1922. The two sons, Ben and Carl, form a new partnership, conducting the business under the name Rainey Brothers. Ben and Carl each invest enough cash in the new partnership to have an equal net share in the concern, which is to be capitalized at $\$ 8,000.00$. The balance sheet of A. Rainey \& Sons, on June 30, 1922, was as follows:
A. RAINEY \& SONS

Balance Sheet, June 30, 1922

| Cash. . Assets ${ }^{\text {a }}$. . . . . . ${ }^{\text {c }} 550.00$ | ```Liabilities and Capital Accounts Payable . . .``` | \$ 1,200.00 |
| :---: | :---: | :---: |
| Accounts Receivable . . . . . . $2,500.00$ | A. Rainey, Capital . . $\$ 4,800.00$ |  |
| Notes Receivable. . . . . . . $2,200.00$ | plus Drawing a/c . . 900.00 | 5,700.00 |
| Merchandise Inventory . . . . . 2,850.00 |  |  |
| Building. . . . . . . . . . . 2,000.00 | Ben Rainey, Capital. . \$2,400.00 |  |
| Land. . . . . . . . . . . . . 1,000.00 | less Drawing a/c . . 320.00 | 2.080 .00 |
|  | Carl Rainey, Capital . $\$ 2,400.00$ <br> less Drawing a/c . . 280.00 | 2.12000 |
| \$11,100.00 |  | \$11,100.00 |

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Since this business is to be continued, the same set of books will be used. Two of the three partners' Capital Accounts will remain on the books. You will note that A. Rainey's Drawing Account has a credit balance, probably because he left a part of his share of the profits in the business. The capital of the two sons, however, has been drawn against, as shown by the debit balances in their Drawing Accounts.

The necessary steps are:

1. Close all the drawing accounts.
2. Close A. Rainey's Capital Account.
3. Show the additional cash invested by the remaining partners.
June 30, 1922 A. Rainey, Drawing ................................. \$ 900.00
A. Rainey, Capital ............................................
A.
Closing Drawing into Capital Account

Ben Rainey, Capital.................................-. 320.00
Ben Rainey, Drawing.-............................................... \$ 320.00
Closing Drawing into Capital Account
Carl Rainey, Capital................................. $\$ 280.00$
Carl Rainey, Drawing.
$\$ 280.00$
Closing Drawing into Capital Account
A. Rainey, Capital...................................... $\$ 5,700.00$

Notes Payable
\$5,700.00
Closing A. Rainey's Capital Account as
he withdraws from the business and is paid for his interest by a note of the two sons.
Cash ...............................................................-. $\$ 3,800.00$
Ben Rainey, Capital............................................. $\$ 1,920.00$
Carl Rainey, Capital......................................... $1,880.00$
Ben and Carl contributing cash, as addi-
tional investment, to bring total to $\$ 8,000.00$, each having $1 / 2$ interest.
If A. Rainey had been paid in cash or some other form of property, such property account would have been credited instead of the Notes Payable Account.

After the dissolution of the old partnership and the formation of the new firm the balance sheet of Rainey Brothers would appear as follows:

RAINEY BROTHERS
Balance Sheet, July 1, 1922

| Assets | Liabilities and Capital |
| :---: | :---: |
| Cash. . . . . . . . . . . . . . $\$ 4,350.00$ | Accounts Payable. . . . . . . $\$ 1,200.00$ |
| Accounts Receivable . . . . . . 2,500.00 | Notes Payable . . . . . . . . . 5,700.00 |
| Notes Receivable. . . . . . . $2,200.00$ | Ben Rainey, Capital . . . . . 4,000.00 |
| Merchandise Inventory . . . . . 2,850.00 | Carl Rainey, Capital. . . . . 4,000.00 |
| Building. . . . . . . . . . $2,000.00$ |  |
| Land. . . . . . . . . . . . 1,000.00 |  |
| \$14,900.00 | \$14,900.00 |

The same procedure would be followed should a partner die. In such a case, the old partners must make settlement with the estate of the deceased.
2. Partnership Dissolved by Admitting New Partner. Before a new partner is admitted the old partnership must be dissolved. In winding up the affairs of the old partnership the same books will usually be retained for the new partnership, since the business is to be continued. Adjustments, however, must be made in the Capital Accounts of the partners that remain in the business, and new Capital Accounts set up for the incoming partners in accordance with the new partnership agreement.

When a person is admitted into a going partnership, several possibilities may arise, depending on the agreement.
(a) The new partner may buy an interest in the business by paying the partners on the side.
(b) The new partner may buy an interest in the business by investing money in the business.
(c) The new partner may buy an interest in the profits of the business.
(d) The new partner may buy an interest in the goodwill of the concern.

Problem (a). Buying an Interest in a Partnership by Paying Partners on the Side. White and Smith have conducted a partnership for several years. On December 31, 1921, their balance sheet appeared as follows:

WHITE \& SMITH
Balance Sheet, Dec. 31, 1921


The firm offers to sell Brown a $1 / 4$ interest in the partnership for $\$ 50,000.00$, to be paid on the side, $1 / 2$ to White and $1 / 2$ to Smith. Brown accepts the offer. How would the Capital Accounts appear after his admission?

Solution: Since Brown pays the $\$ 50,000.00$ to the partners themselves and not into the business, no entry is made for the cash received. Therefore, the assets will be no larger after the new partner is admitted than before, as shown by the following balance sheet:

WHITE, SMITH \& BROWN
Balance Sheet, January 1, 1921


As stated, the agreement provides that Brown is to have a $1 / 4$ interest in the business. The total capital is $\$ 100,000.00$, hence Brown is credited with $\$ 25,000.00$. The remaining $\$ 75,000.00$ capital is equally divided between White and Smith, as shown by the adjusting entry:

To record Brown's admission into the partnership and adjust old partners' capital according to the agreement.
Some accountants prefer to set up goodwill as an asset on the partnership books before closing. The reason they give is that the sale of a $1 /$ interest for $\$ 50,000.00$ is equivalent to valuing the new business at $\$ 200,000.00$. In other words, White and Smith are selling something besides tangible assets; namely, goodwill. The old capital was $\$ 100-$ 000.00 ; the new capital is to be $\$ 200,000.00$. This excess of $\$ 100,000.00$ would, according to their method, be brought on the partnership books, before dissolution, as an asset, by the following entry:
December 31, 1921 Goodwill
$\$ 100,000.00$
White, Capital
$\$ 50,000.00$
Smith, Capital
50,000.00
To divide the goodwill equally according to the agreement.
The chief objection to this method is that the assets are inflated from $\$ 100,000.00$ to $\$ 200,000.00$ by arbitrarily setting up goodwill. If the goodwill represents a real value-such as the name of a business, an established trade, or other advantages-then there would be no objection to setting up goodwvill. Ordinarily, however, goodwill should not be set up on the books as an asset unless it represents the purchase of some such intangible value. Such is not the case in the original partnership.

The situation here is: White and Smith sell $1 / 4$, interest in the business, $\$ 25,000.00$ worth of capital for $\$ 50,000.00$, none of which is brought into the business. White and Smith each receive $\$ 25,000.00$ cash. The investment in the business after the new partner is admitted is exactly what it was before, and should so appear on the balance sheet.

Problem (b). Buying a Share in a Partnership by Making an Investment. Suppose that Brown, in the problem given above, paid his $\$ 50,000.00$ into the business instead of to the partners individually. How would the Capital Accounts appear?

Solution: The dissolution entries will be made as follows:
December 31, 1921 Cash
$\$ 50,000.00$
Brown, Capital
$\$ 50,000.00$
To record investment by Brown.
Brown, Capital .......................................... $\$ 12,500.00$
White, Capital ....................................... $\$ 6,250.00$
Smith, Capital ...................................... 6,250.00
To adjust the Capital Accounts so that Brown will have $1 / 4$ interest in the business.

These adjusting entries when posted will cause the balance sheet of the new firm to appear thus:

WHITE, SMITH \& BROWN
Balance Sheet, December 31, 1921


Note how this problem differs from problem (a). In (a) the new partner buys an interest in the business without making an investment in the business. In (b) the partner buys an interest in the business by contributing additional investment.

Problem (c). Buying an Interest in the Profits. Assume that Brown, of our problem, by investing his $\$ 50,000.00$ in the business, is to receive merely a $1 / 4$ interest in the profits. How would the Capital Accounts appear?

The following entry would be necessary:
December 31, 1921 Cash $\qquad$ $\$ 50,000.00$
Brown, Capital $\$ 50,000.00$
To record Brown's Capital.
The balance sheet of the new firm now stands as follows:

> WHITE, SMITH \& BROWN

Balance Sheet, December 31, 1921


Thus Brown, by paying in $\$ 50,000.00$, is to receive a $1 / 4$ interest in the profits. The other two partners will receive the remaining $3 / 4$ of the profits, or $3 / 8$ each.

Brown, however, holds a $1 / 3$ interest in the firm's assets, since he is credited with $\$ 50,000.00$. Distinguish clearly between the two ratios:

|  | Profit and Loss <br> Sharing Ratio <br> $3 / 3$ | Interest <br> in Assets |
| :--- | :---: | :---: |
| White | $3 / 8$ | $1 / 3$ |
| Smith | $1 / 4$ | $1 / 3$ |
| Brown |  | $1 / 3$ |

Problem (d). Buying an Interest in the Goodwill. Alston and Baker are partners, sharing profits and losses equally. Alston invested $\$ 15,000.00$ and Baker $\$ 10,000.00$. On December 31, 1921, Coleman was
asked to join the partnership, because of his credit standing. He was too busy to give much of his time, so he came in on the understanding that he invest $\$ 3,000.00$ and receive a $1 / 3$ interest in the goodwill. This practically meant that he would share in the profits, and in case of dissolution his claim would be limited to the profits that he would have left in the business. In other words, his investment would not count in case of dissolution. How would Coleman's investment of $\$ 3,000.00$ be handled on the books, and how would the Capital Accounts stand after he was admitted?

Solution: The following adjusting entries will be made to show the facts:
December 31, 1921 Cash .............................................................. $\$ 3,000.00$
Coleman, Capital
$\$ 3,000.00$
To record Coleman's investment.

| Coleman, Capital | \$3,000.00 |
| :---: | :---: |
| Alston, Capital | \$1,500.00 |
| Baker, Capital | 1,500.00 |

To record the profit from the sale of $1 / 3$ interest to Coleman.

After these entries are posted the Capital Accounts will appear thus:

|  | Alston | Baker | Coleman |
| :---: | :---: | :---: | :---: |
| Investment. | \$15,000.00 | \$10,000.00 | \$3,000.00 |
| Goodwill sale | 1,500.00 | 1,500.00 | ......... |
| Investment distributed. | \$16,500.00 | \$11,500.00 | $\begin{array}{r} \$ 3,000.00 \\ 3,000.00 \end{array}$ |
| Capital Account Balances. . . . | \$16,500.00 | \$11,500.00 | .......... |

The point here is that the Capital Account balances are unequal; in fact, Coleman has nothing to his credit, but, even so, the three partners share profits and losses equally.
3. When a Partnership Is Sold. Now take the case of a partnership sale. A partnership may be sold under three conditions:
(a) For an amount exactly equal to its net worth
(b) For more than its net worth.
(c) For less than its net worth.
(a) First we shall consider the case of a partnership that is sold exactly for its net worth. Assume that on December 31, 1921, the firm of Blackstone \& Whitemore sells its business to the Crane Tool Works for $\$ 150,000.00$, cash to be paid on January 31, 1922. The partnership's balance sheet appears as follows:

Balance Sheet, December 31, 1921


Solution: First of all, we will determine the net worth.
Second, we will close the accounts of the partnership.
The net worth here is determined thus:
Assets, $\$ 675,000.00$-Liabilities, $\$ 525,000.00=$ Net Worth, $\$ 150,000.00$
The closing entries are:
December 31, 1921 Blackstone, Capital $\$ 20,000.00$
Blackstone, Drawing Account. $\qquad$ \$ 20,000.00
To close Blackstone's Drawing Account into his Capital Account.

Whitemore, Capital \$ 30,000.00
Whitemore, Drawing Account...
To close Whitmore's Drawing Account into his Capital Account.

Crane Tool Works ........................... $\$ 675,000.00$
Sundry Assets
. $\$ 675,000.00$
Charging vendee with assets sold and closing the asset accounts.

Sundry Liabilities ............................... $\$ 525,000.00$
Crane Tool Works
$\$ 525,000.00$
Crediting vendee with the liabili-
ties assumed by them and closing the liability accounts.

January 31, 1922 Cash
Crane Tool Works
. $\$ 150,000.00$
Closing vendee's account as a result
of their turning over the cash.
January 31, 1922 Blackstone, Capital
Whitemore, Capital 50,000.00
Cash
$\$ 150,000.00$
To divide the cash between the partners according to their investment.
The closing entries for the sale of a partnership may be briefly thus summarized from the above illustration:

1. Close partners' Drawing Accounts into their Capital Accounts.
2. Close the asset and liability accounts into an account with the vendee (the buyer).
(a) Debit vendee with assets-credit asset accounts.
(b) Credit vendee with liabilities-debit liability accounts.
3. Close Vendee's account when cash is received.
(a) Debit Cash.
(b) Credit vendee.
4. Close the Cash Account and the Partners' Capital Accounts, when cash is turned over to partners.
(a) Debit Capital Accounts.
(b) Credit Cash.
(b) The second case to be considered under a partnership sale assumes that a partnership is sold for more than its net worth. Take for illustration the same problem which was considered under (a), with some of the facts changed to read thus:

The Crane Tool Works pays the firm of Blackstone \& Whitemore \$160,000.00 instead of $\$ 150,000.00$. In other words, the vendee (the buyer) pays $\$ 10,000.00$ more than the net worth. This excess represents a capital profit called "Goodwill," which must be credited to the partners' Capital Accounts. How much each partner is to receive will depend upon how they have agreed to share profits. In our problem it is assumed that the partners share profits equally.

Here, again, there are two ways of handling this profit.

1. Consider the excess of selling price over net worth merely as a profit.
2. Set up the excess or goodwill as an asset on the partnership books.

Method 1. Using this method we will set up a Realization and Liquidation Account and make the following entries:

December 31, 1921 Realization and Liquidation $\qquad$ . $\$ 675,000.00$

## Sundry Assets (closed as separate

 accounts) $\qquad$ $\$ 675,000.00$To close the assets.
Sundry Liabilities (closed as sepa-
rate accounts) ......................................025,000.00
Realization and Liquidation

To close the liabilities.

Crane Tool Works ............................ $\$ 160,000.00$
Realization and Liquidation ...................... $\$ 160,000.00$
To set up an account with the vendee.

Realization and Liquidation ............ $\$ 10,000.00$
Blackstone, Capital
\$ 5,000.00
Whitemore, Capital .............................. $5,000.0$
To distribute the profit equally and close the Realization and Liquidation Account.

After posting the above entries and closing the Drawing Accounts, we will have the following accounts:

Realization and Liquidation


Blackstone, Capital


Whitemore, Capital


Crane Tool Works

| $\begin{aligned} & \hline 1921 \\ & \text { Dec. } \mid 31 \\ & \end{aligned}$ | Realization and Liquidation |  | $\overline{\overline{1921}}$ |  |
| :---: | :---: | :---: | :---: | :---: |

Three of the above accounts, the two Capital Accounts and the vendee's account, will remain open until the cash is received from the Crane Tool Works, January 31, 1922. Then the following debits and credits will be made, and the accounts on the partnership ledger are closed.
January 31, 1922 Blackstone Capital $\qquad$ .\$105,000.00
Whitemore, Capital $\qquad$ 55,000.00

To record payment by vendee, and distribution of assets to partners.
On the books of the Crane Tool Works the $\$ 10,000.00$ excess of purchase price over net worth is set up as goodwill, which represents an asset.

This is proper because $\$ 10,000.00$ has been invested and this investment represents an asset.

Method 2. The $\$ 10,000.00$ profit may be handled in another way on the partnership books; namely, by setting it up as an asset before closing, thus:
December 31, 1921 Goodwill $\$ 10,000.00$
Blackstone, Capital
$\$ 5,000.00$
Whitemore, Capital .......................... $5,000.00$
To set up goodwill as an asset.
The other closing entries are not given here because they would be the same as mentioned above. Method 2 is not approved by some accountants, for the reason that goodwill does not represent an actual investment, hence it should not be set up as an asset. It is merely a profit to the selling partnership and should be so handled. To the Crane Tool Works, however, it does represent an investment and should properly appear among their assets. They have purchased the goodwill by investing $\$ 10,000.00$.
(c) Now take the third case; namely, when a partnership is sold for less than its net worth. If Blackstone and Whitemore sell their business to the Crane Tool Works for $\$ 140,000.00$ they will suffer a capital loss of $\$ 10,000.00$. The situation here is just the opposite of the situation under (b).

The loss is charged equally against the partners' capital thus: December 31, 1921 Blackstone, Capital $\$ 5,000.00$
Whitemore, Capital 5,000.00 Realization and Liquidation .................................. $\$ 10,000.00$
To record capital loss and close Realization and Liquidation Account.
4. Dissolution of Partnership for Purpose of Incorporating. When a partnership needs more capital or when the partners wish to be relieved from the personal liability in connection with a growing business they usually decide to change their partnership into a corporation.

When this situation arises, the accountant has two things to do:

1. Close the books of the partnership.
2. Open the books for the corporation.

Problem: Knight, Dickson, and Rayson conduct a partnership. They share profits and losses in proportion to their original investment. On June 30, 1922, they decide to incorporate. Their balance sheet of this date was as follows:

> KNIGHT, DICKSON \& RAYSON
> Balance Sheet, June 30,1922


The new corporation is to be called "Knight \& Company." It is to have an authorized capital stock of $\$ 200,000.00$, with a par value of $\$ 100.00$ per share. All this stock is to be issued and divided among the partners in final settlement for their interests in the partnership.

Solution: The solution of this problem requires:

1. Closing the partnership's books.
2. Opening the corporation's books.

Entries to close the partnership's books.
June 30, 1922 Knight \& Company ............................ $\$ 200,000.00$
Assets ............................................... $\$ 200,000.00$
To close the asset accounts.
Liabilities ............................................. $40,000.00$
Knight \& Company .................................. $\$ 40,000.00$
To close the liabilities.
Knight \& Company Stock ................ $\$ 200,000.00$
$\begin{array}{lr}\text { Knight \& Company ..................... } & \$ 160,000.00 \\ \text { Capital Profit or Goodwill-Ex- } & 40,000.00\end{array}$
To record transfer of stock to partnership.

Capital Profit ...................................... $\$ 40,000.00$
Knight, Capital, 8/16
Dickson, Capital, 5/16
12,500.00
Rayson, Capital, 3/16
7,500.00
To distribute capital profit accord-
ing to investment.
Knight .................................................. $\$ 100,000.00$
Dickson ................................................................... 62,500.00
Rayson
37,500.00
Capital Stock .-----............................................................ $\$ 200,000.00$
To show the distribution of capital stock among the partners.
The entries that would be made to open the corporation's books are not given here, as you have not had entries for corporations. These are reserved for the next assignment.

## II. DISSOLUTIONS WITH LIQUIDATION

In the problems used thus far, the partnership business continues the same as before, only under new management. When, however, a partnership dissolves, and the business is discontinued, we have the additional problem of liquidation.

Partners may at any time agree to dissolve and liquidate. In fact the time for dissolution may be stated in the terms of agreement, or they may find that their business is unprofitable. They may be unable to agree further, their business may become illegal, or they may find it desirable to take the money they have invested in the partnership and
put it into some more profitable enterprise. In any case liquidation is necessary.

Such a dissolution, whether voluntary or involuntary, is handled by the following four steps:

1. Closing the books and distributing the operating profit or loss.
2. Liquidating the assets and satisfying the creditors.
3. Dividing the excess or deficiency of assets resulting from the liquidation.
4. Distributing the final assets.

The last step may involve two conditions, both of which we will illustrate:

1. When the final distribution is made in one payment.
2. When the distribution is made in installments.

Condition 1. Final Distribution in One Payment. Pfeifer \& McCready are partners, sharing profits and losses equally. Pfeifer made an original investment of $\$ 50,000.00$ and McCready $\$ 40,000.00$. Their business is not a success, so on December 31, 1921, they agree to wind up the affairs of the partnership. The assets that are left after creditors are paid amount to $\$ 40,000.00$. How should these assets be divided between the partners?

Solution: The balance sheet on December 31, 1921, will appear thus: PFEIFER \& McCREADY
Balance Sheet, December 31, 1921

| $\begin{aligned} & \text { Assets. . . . . . . . . . . . . } \$ 40,000.00 \\ & \text { Loss on Assets. . . . . . . . . . } 50,000.00 \end{aligned}$ | Pfeifer, Capital. . . . . . . . $\$ 50,000.00$ |
| :---: | :---: |
|  | McCready, Capital . . . . . . 40,000.00 |
| \$90,000.00 | \$90,000.00 |

According to the agreement, this loss of $\$ 50,000.00$ is divided equally between Pfeifer and McCready, as shown by the journal entry:
December 31, 1921 Pfeifer, Capital $\$ 25,000.00$
McCready, Capital 25,000.00
Profit and Loss
$\$ 50,000.00$
To close the loss into Capital Accounts
Posting this journal entry we will have the following Capital Accounts:

Pfeifer


Pfeifer will now have a credit balance of $\$ 25,000.00$ and McCready will have $\$ 15,000.00$. When the assets are converted into cash, the asset accounts are credited, and the Capital Accounts are debited and closed. Pfeifer will receive $\$ 25,000.00$ and McCready will receive $\$ 15$,000.00.

If, however, the assets did not realize enough to pay the creditors in full, then the deficiency would have to be made up by Pfeifer and McCready, as determined by court. Dissolution caused by bankruptcy will be considered in a later assignment, Statements of Affairs.

Condition 2. Installment Distribution. The dissolution of a partnership may in some cases require considerable time. Under such circumstances the partners usually prefer to receive their shares in installments as quickly as the cash is available rather than wait for weeks or months. Such distributions are called installment dividends. If they receive their share by installments, the partners will be able to use their money, which otherwise might lie idle until final settlement.

The installment method, however, involves the risk of overpaying one or more of the partners, and underpaying others, especially when the capital ratio is different from the profit and loss sharing ratio. It is of course impossible to know exactly how much each partner is to receive until all assets have been realized. It is assumed, therefore, that the first installment is all the partners will receive and that all the rest is lost. That is why the capital of each partner is reduced to the profit and loss ratio. Each partner is given enough to bring his capital down to that amount.

Assume this situation. Aker and Baker are partners, sharing profits and losses-Aker $3 / 5$, and Baker $2 / 5$. The firm is dissolved on July 1, 1922. The creditors are paid in full. Aker's Capital Account shows a credit balance of $\$ 80,000.00$ and Baker's, $\$ 45,000.00$. On August 1, $\$ 16,-$ 000.00 has been realized from the sale of the assets; on September 1, $\$ 8,000.00$; and on October 1, $\$ 4,000.00$. It is decided to distribute this $\$ 16,000.00$ among the partners as the first installment dividend and not to wait until other assets are realized. In fact, on August 1, it is not known how much can be realized. Therefore the partners are paid just as if nothing more were to be realized. How will the three installments be divided between Aker and Baker?

Solution: The solution may be set up as follows:
Installment 1, August 1, 1922

|  | Total | $A k \in r$ | Baker |
| :---: | :---: | :---: | :---: |
| Capital Account Balances. . . | \$125,000.00 | \$80,000.00 | \$45,000.00 |
| First Dividend (Distributed). | 16,000.00 | 14,600.00 | $1,400.00$ |
| Balances (New Capital). . | \$109,000.00 | \$65,400.00 | \$43,600.00 |

Thus, Aker will receive $\$ 14,600.00$, and Baker, $\$ 1,400.00$.

The Capital Accounts now stand in the same ratio as that by which profits and losses are shared in accordance with the agreement; namely, Aker $3 / 5$ and Baker 2/5.

The easiest way to understand this problem is to work it out just as if the $\$ 16,000.00$ is all they are going to get. The $\$ 109,000.00$, then, would be a loss. Aker would share $\$ 65,400.00$, and Baker $\$ 43,600.00$. If you were to debit these losses to the Capital Accounts, you would find that the balances remaining are exactly the amounts distributed; Aker, $\$ 14,600.00$, and Baker $\$ 1,400.00$.

Installment 2, September 1, 1922

|  | Total | Aker | Baker |
| :---: | :---: | :---: | :---: |
| Capital Second Dividend | \$109,000.00 | \$65,400.00 | \$43,600.00 |
|  | 8,000.00 | 4,800.00 | 3,200.00 |
|  | \$101,000.00 | \$60,600.00 | \$40,400.00 |

The second dividend is distributed like all profits and losses. The Capital Accounts now stand: Aker, $\$ 60,000.00$; and Baker, $\$ 40,400.00$; or a total of $\$ 101,000.00$.

Installment 3, October 1, 1922.
The final installment is $\$ 4,000.00$, of which Aker receives $3 / 5$, or $\$ 2,-$ 400.00 , and Baker receives $2 / 5$, or $\$ 1,600.00$.

## SPECIAL PARTNERSHIPS

In the discussion thus far on partnership accounting, including formation, operation, and dissolution, we have used the general partnership for purposes of illustration. By a general partnership we mean a firm which engages in a continuous business of a more or less permanent nature.

In your accounting practice you will also find partnerships of a special nature, which require special consideration. The following three are important:

1. Limited partnerships.
2. Joint stock companies.
3. Joint ventures.

Limited Partnerships. "A limited partnership is one in which certain members, known as special partners, are not liable for the obligations of the firm in tort or contract, except to the extent of the capital they have invested. At common law all partners are responsible for all the debts and other liabilities of the firm. Limited partnerships, the conception of which is borrowed from the civil law, are wholly founded upon stat-utes."-Hirschl, "Business Law."

From an accounting point of view, then, in dealing with the formation, dissolution, or the distribution of profits or losses in a limited partnership, a knowledge of the laws of the state is essential. Usually the laws specify that the special partner or partners shall contribute all of their capital in cash, that they shall not withdraw any of the original capital, and that they shall not be liable for debts of the firm beyond the amount of capital they have invested. It is usually provided, also, that a special partner shall receive a certain fixed rate of interest on his investment before the distribution of profits is made.

With these few exceptions, any of the general principles developed in connection with partnership accounting can be applied to accounting for a limited partnership.

Joint-Stock Companies. Another type of special partnership especially popular in England is the joint-stock company. It has some of the characteristics of a partnership and some of a corporation. The capital is divided into shares, and partnership interest is represented by these shares. The shares are transferable like those of a corporation. Accordingly, the withdrawal of one or more of the partners does not dissolve the partnership. The joint-stock company resembles the partnership most closely in that each member is personally liable for the debts of the company. It differs from a partnership in that its life is continuous, that is it is not affected by the death of a partner.

Accounting for such a concern obviously requires a more elaborate record of the shareholders and their capital investments. Such list of members may be kept in a separate subsidiary book with only one Capital Account in the general ledger to represent the appregate capital. This principle will be described more fully in connection with corporation accounting in the next assignment. Profits are distributed according to the number of shares held, so the procedure is not very complicated. No drawing accounts are required. Since the real accounting features are more like those of corporations, they will be easily derived from the principles of corporation accounting.

Joint Ventures. A temporary partnership for the purpose of carrying out some specific project of a trading nature has long been known as a "joint venture." Joint ventures were much more common in the days of colonial development, uncertain shipping conditions, and undeveloped international credit relations. They assumed the nature of real adventures at times with great risks involved. For example, two or three men might form a temporary partnership for the purpose of bringing a cargo of furs to England or for taking a cargo of iron to some far-off colony.

In the case of such ventures, there naturally sprang up quite a demand for accounts to show the true relationship, the profits, and contributions of the several partners. Altho the demand for such accounting is not quite as great as formerly, there are still a number of cases in which temporary partnerships require the keeping of some accounts. One might even designate as a joint venture a temporary agreement between two young men to sell refreshments at a street fair, county fair, or carnival. Practically the same accounting principles would apply to such a simple case as to the more extended joint ventures.

There are two methods of operating a joint venture which determine the accounting features:
(a) Where one set of books is kept for the joint venture.
(b) Where the transactions of the joint venture are kept on separate books by the partners, no common set of books being used.
The first of these methods is so much like a regular partnership that little need be said concerning it. The chief difference between the set of books of the joint venture and of the ordinary partnership lies in the number of nominal accounts. No elaborate comparative statistics are required in the joint venture, hence all costs are debited and all incomes credited to one nominal account called the "Joint Venture Account," except when the venture covers a considerable period of time.

The Joint Venture Account in a ledger is similar in construction and contents to a Trading Account in an ordinary business, if the latter received details first-hand and not thru other accounts. The investments of the partners are credited to their Capital Accounts and debited to Cash or some other asset account. The Joint Venture Account is charged with goods bought, with expenses of various sorts, and with interest on capital. It is credited with sales, and the balance (presumably profit) is divided among the partners as agreed, or equally, in the absence of any agreement.

The second method of operating joint ventures, in which no firm books are kept, is the one that is used when it is difficult or impossible to have a central office and common bank account. Each partner incurs expenses out of his own funds, buys goods for resale, sells goods, and collects cash in accordance with the agreement. At the close of the venture all the partners present statements of their disbursements and receipts. From such statements a Joint Venture Statement is prepared. After dividing the profits or losses, the accounts of the partners are presented for the purpose of settling amounts due one another as a result of unequal expenditures for materials or services or unequal collection of the proceeds of sales.

Problem. During the fall of 1922, Russell and Noble engaged in a joint venture in potatoes. They agree to purchase five carloads of potatoes from Wisconsin farmers. It is agreed that Russell is to buy the potatoes and Noble is to sell them from the car. Profits are to be shared equally. Each party keeps a separate record.

Russell pays cash for the following:
Five carloads of potatoes, 2,500 bushels @ \$1.00............................................... $\$ 2,500.00$
Freight .............................................................................................................. 600.00
Insurance ............................................................................................................... 175.00
Total ............................................................................................................... $\$ 3,275.00$
Noble incurred the following expenses and received the following cash: Expenses:

Assignment 19, Page 18

Cash received from sale of potatoes:
2,500 bushels @ $\$ 1.75$
\$4,375.00
(a) Show the Joint Venture Account and the account of each partner as it would appear just before they settled.
(b) How would final settlement be made between Russcll and Noble?

## SOLUTION

Russell-Joint Venture


| Purchases |  |
| :---: | :---: |
| Expenses: |  |
| Preight | \$600.00 |
| Insurance | 175.00 |
| $\frac{1}{2}$ Net Profit |  |


Noble-Joint Venture


RUSSELL-NOBLE
Joint Venture Account-5 Carloads of Potatoes


Final settlement will be made according to the partners' accounts.

Since Noble took in all the cash from sales and Russell bought and paid for the potatoes out of his own pocket Noble obviously owes Russell the amount of $\$ 3,755.00$, as shown in the accounts.

## MAIN POINTS IN THIS ASSIGNMENT

As you have noted, this assignment is made up quite largely of illustrative problems. This is partly due to the great variety of problems that come up at the time of dissolution, but chiefly for the purpose of illustrating certain fundamental accounting principles. In reviewing these principles you will find the following outline a helpful guide.

First: There are three things that an accountant should consider in making entries at the time of dissolution:

1. Causes of dissolution.
2. Provisions for dissolution in the agreement.
3. Requirements of the partnership laws.

Second: There are two kinds of dissolution; one without liquidation, the other with liquidation, either of which may be voluntary or involuntary.

## I. Without Liquidation

1. Withdrawal or death of partner.
2. Admission of new partner.
(a) Buying interest in business without investing.
(b) Buying interest by investing.
(c) Buying interest in the profits.
(d) Buying interest in goodwill.
3. When a partnership is sold-use of Realization and Liquidation Account.
(a) For exactly its net worth-close Drawing Accounts, assets, and liabilities. Make entries on books of vendor.
(b) For more than its net worth-two ways, handle excess as profit or set it up as an asset.
(c) For less than its net worth-charge losses to partners' capital.
4. Changed to corporation.
(a) Close books of partnership.
(b) Open books of corporation.

## II. With Liquidation

1. Condition one: When settlement is made in one final payment.
2. Condition two: When settlement is made by installments.

Third. Special Kinds of Partnerships.

1. Limited partnerships.
2. Joint-stock companies.
3. Joint ventures.

If you find that you have failed to master any one of these main points you will do well to reread that portion of the assignment now, before taking up the problems.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 19

The problems of this assignment require close analysis on your part. Analyze each situation carefully and you will have no difficulty in preparing the solutions. Send in solutions for all the following problems:

1. Strong and Powers are partners, sharing profits and losses equally. At the end of the second year, Mr. Strong's Capital Account shows a credit balance of $\$ 4,000.00$ and Mr. Powers', $\$ 2,000.00$. At this time they admit Mr. Wolf into the partnership, giving him a $1 / 3$ interest in the business. Give the journal entries that must be made for each of the following conditions:
(a) Mr. Wolf pays $\$ 6,000.00$ into the business-no goodwill.
(b) Mr. Wolf pays $\$ 6,000.00$ to the two partners on the side-goodwill $\$ 3,000.00$.
(c) Mr. Wolf pays $\$ 3,000.00$ to the partners on the side-no goodwill.
2. On July 1, 1922, the A \& B partnership sells its business to Mr. Cole for $\$ 25,000.00$. Nothing is said in the partnership agreement as to how profits and losses are shared. On that date the partnership balance sheet appeared thus:

A \& B (Partnership) Balance Sheet, July 1, 1922

| Cash. . | \$ 1,250.75 | Accounts Payable. | \$ 3,000.00 |
| :---: | :---: | :---: | :---: |
| Accounts Receivable | 5,312.25 | Notes Payable. . | 1,200.00 |
| Building. . | 10,000.00 | Mortgage Payable | 2,500.00 |
| Land. . . . | 2,000.00 | A's Capital . . | 10,163.00 |
| Equipment . | 3,300.00 | B's Capital | 5,000.00 |
|  | \$21,863.00 |  | \$21,863.00 |
|  |  |  |  |

(a) Give the journal entries necessary to close the books of the partnership.
(b) Give the journal entries on the books of Mr. Cole.
3. Parks and Bird are partners, sharing profits and losses equally. Parks made an original investment of $\$ 70,000.00$ and Bird, $\$ 60,000.00$.

They agree to dissolve the partnership on July 1, 1922. Creditors are paid in full. The assets that are left amount to $\$ 100,000.00$.

How should these assets be divided?
4. Assume the same condition as given in problem 3, except that settlement is made in installments.

Up to August 1, $\$ 25,000.00$ has been realized on the assets. This is divided between the partners.

September 1, $\$ 75,000.00$ is realized and distributed.
Show how both of these installment dividends are distributed.
5. Wallace and Yates entered into a lumber speculation on February 1, Wallace depositing $\$ 4,500.00$ and Yates, $\$ 3,500.00$ to their joint
credit at the state bank of Athens. They agreed to share profits or losses in proportion to these amounts. Out of this they paid $\$ 3,500.00$ for lumber, $\$ 2,500.00$ for wages, and $\$ 1,000.00$ for freight and other expenses. The sales up to August 1, amounted to $\$ 12,000.00$, proceeds of which had been deposited in the bank and a check issued to each partner for the amount of his investment. The business was wound up, Wallace taking over the unsold lumber at $\$ 950.00$, as part of his profit, and the balance in cash.
(a) Prepare a statement showing profit or loss on the venture.
(b) Show each partner's account as it would appear after the affairs had been wound up and final settlement made between the partners.
(c) How would final settlement between the partners be made?

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 20 <br> CORPORATION ACCOUNTING, FORMATION, AND OPERATION

IN my own experience, both as a banker and railroad man, I have found a knowledge of accountancy invaluable. Indeed, I cannot emphasize too strongly the advantage it has been to me.

Wilbur C. Fisk, C. E.
President, Hudson \& Manhattan Railroad of N. Y.

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint

Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignaients
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## CORPORATION ACCOUNTING

## FORMATION AND OPERATION

The corporate form of business organization is more popular among business men to-day than ever before. The 1918 report of the Commissioner of Internal Revenue shows a total of almost 318,000 corporations in the United States with a capitalization of billions of dollars. This one fact alone is evidence of the recent tendency toward the corporate form.

You yourself have probably noticed the development of corporations in your community. You have seen small manufacturing and trading concerns that started as sole proprietorships or partnerships converted into corporations for the purpose of securing additional capital.

This increasing preference for the corporate form of business has naturally created a growing demand for accountants who are able to handle corporation books and prepare corporation statements and reports.

This assignment, therefore, aims to set forth some of the more important accounting problems that arise in the formation and operation of a corporation.

Corporation accounting does not differ in general fundamental principles from the accounting of any other type of business organization. There are, however, certain business transactions, accounts, books, and entries peculiar to corporations which call for special consideration on the part of the accountant. These require explanation and illustration.

Definition of Corporation. First of all, it is well to understand what is meant by the term "corporation." Chief Justice Marshall has defined a corporation as "an artificial being, invisible, intangible, and existing only in contemplation of law." From the business and legal point of view, therefore, a corporation is an individual, even tho it is composed of a group of individuals. It is a creation of law; that is, the corporation is formed by receiving a charter from the state. The laws of the state also govern its operation.

Formation of Corporations. The formation of a corporation begins with an informal meeting of the persons who desire to incorporate. In most states the law requires at least three persons as original incorporators. A formal application is drawn up, stating the names of the incorporators and their addresses; also the location and nature of the intended business, and conforming to any other legal requirements. An application for the charter is sent to the proper state official-usually the secretary of state-with the necessary fee. If approved, a charter is issued giving the corporation the right to exist and to carry on business.

Corporations are thus formed in accordance with the laws of the state. They are also subject to the regulation and supervision of state authority as illustrated by the franchise tax and the annual report.

Advantages of Corporate Organization. Each type of business organization has its peculiar advantages. The partnership has certain advantages over the individual proprietorship. Likewise the corporation has several very distinctive advantages over the partnership as indicated below.

## Partnership

Each partner is fully liable for the obligations of the partnership. He may be sued personally for any partnership debts.

Withdrawal, bankruptcy, or death of a partner dissolves the partnership.

New partners can be admitted or partners can transfer their interests only by forming a new partnership. This must be agreeable to the other partners.

Partnership activities are subject to the direct supervision of the partners. Usually all important transactions must be approved by all the partners.

## Corporation

A member (stockholder) is not liable for any obligation of the corporation. He may lose the amount invested, but no more. In a few special cases the law specifies an additional liability, but this is limited to an amount equal to his investment.

A corporation exists permanently or for a period of years, according to the terms of its charter.

Stockholders may sell, transfer, or convey their shares without affecting the corporation itself. New stockholders can be admitted by purchasing stock from the company or from other stockholders.

The management of the business is placed in the control of competent persons. As long as the business is conducted properly they act without interference.

Corporate Books and Records. In general, the books of account and operating records for a corporation are the same as those used in connection with other forms of business organization. For example, a wholesale grocery business may be a corporation, a partnership, or a proprietorship. However organized, journals, ledgers, and subsidiary records for bank accounts and other usual transactions will be required. A large organization may, of course, need a more carefully detailed system than a smaller business, but the operating records will be essentially the same. For example, the books and accounts used to record the buying and selling of goods, to record property owned, etc., are not subject to change on account of the form of organization.

There are certain books, however, which are used exclusively by a corporation. These relate chiefly to its organization, or to such transactions as do not arise in partnerships or proprietorships. The books of record peculiar to a corporation are:

1. Subscription Ledger.
2. Installment Book.
3. Capital Stock Ledger.
4. Stock Certificate Book.
5. Stock Transfer Book.
6. Minute Book.
7. Dividend Book.

There are also certain accounts that are peculiar to corporations, such as the following:

1. Capital Stock.
2. Subscriptions to Stock.
3. Capital Stock Subscribed.
4. Treasury Stock.
5. Premium on Capital Stock.
6. Surplus.
7. Dividends.

Subscriptions for Capital Stock. One of the first steps in the organization of a corporation is to secure subscriptions for the capital stock which is to be issued. This is usually done as soon as the charter has been secured. Money must be provided so that the corporation can establish its business and begin operations. It secures the necessary funds from persons who buy the shares of capital stock.

Subscriptions for the sale of capital stock are secured from prospective investors by means of subscription blanks. In order to subscribe, the investor fills in the number of shares desired, signs, and returns the subscription blank. If the number of incorporators is small and the subscriptions are limited to a few persons only, a subscription list is used instead of the separate blanks.

The accounting significance of subscriptions is that they are written agreements enforceable by law when properly filled in and signed. In other words, they are similar in nature to Accounts Receivable, since the corporation has the right to deliver the stock contracted for and collect money from the subscribers who have agreed to purchase the stock. Since the subscriptions give the corporation valuable claims against subscribers, it naturally follows that the corporation's books should contain a record of all subscriptions. These subscriptions are kept in a subscription book.

Journal entries for subscriptions received will naturally appear among the first of the opening entries. From these journal entries the necessary accounts are opened and the subsequent payments recorded.

## ENTRIES FOR ISSUE OF CAPITAL STOCK

There are four different ways by which subscriptions to capital stock may be received. The entry in each case is determined by the method followed. Note carefully that the amounts used are peculiar to corporations.

Case 1. When capital stock is subscribed but the stock is not to be issued to the purchasers until their subscriptions have been paid in full, the following entry is made. Assume that the amount of stock authorized is $\$ 50,000.00$, one-half of which is subscribed for.

[^7]In this case the debit, which sets up subscribers' accounts as assets, has for its corresponding credit an account which acts as a medium for showing the amount of stock subscribed. The stock will not be issued until the total amount subscribed has been paid. Therefore the actual issuing of capital stock is deferred until this amount has been received in cash. As the subscribers pay for their stock, Cash will be debited and the subscribers' accounts credited, indicating the conversion of subscribers' accounts into cash. The following entry shows how the two accounts are affected after all the cash has been received.
Cash. Subscribers. . . . . . . . . . . . $\$ 25,000.00 \quad \$ 25,000.00$

Since the subscribers' accounts have now been paid in full and capital stock can be issued, the following entry records the facts and the Capital Stock Subscribed Account is closed:


Some accountants claim that the books should show tine amount of authorized capital stock. If that is desired, then the opening entries will be as follows:


The net result, after these entries are posted, is that we will have two accounts on the ledger for capital stock.
(a) Capital Stock Authorized, with a credit balance of $\$ 50,000.00$.
(b) Capital Stock Unissued, with a debit balance of $\$ 25,000.00$.

According to this method no one account will show the capital stock issued or outstanding. This amount, however, must be determined by subtracting the debit balance in the Unissued Capital Stock Account from the credit balance in the Capital Stock Authorized Account.

Since this plan is sometimes used, it is well worth while for you to understand the method of making opening entries in this way.

Case 2. When capital stock is issued immediately at the time subscriptions are received the entry will be:

Subscribers
Capital Stock. . . . . . . . . . . . . . . . . . $\mathbf{\$ 2 5 , 0 0 0 . 0 0 ~}_{\$ 25,000.00}$
In this case the corporation issues stock on the basis of subscriptions, relying on its rights to collect the money later. The credit is made to

Capital Stock immediately, because the stock has been issued. When cash is received subsequently in payment of subscriptions, Cash will be debited and the Subscribers' Account will be credited and closed.

Case 3. When capital stock is issued immediately upon payment of cash only one entry is necessary.

Cash. . . . . . . . . . . . . $\$ 25,000.00$
Capital Stock. . . . . . . . . . . . . $\$ 25,000.00$
It is considered by some as better accounting practice to record subscriptions first, even tho the cash is received immediately. Capital stock may be issued under several different arrangements, and in order to keep a complete record it is more consistent to treat all transactions as subscriptions and then record cash received as payment of subscription accounts.

Case 4. When capital stock is exchanged for property other than cash, capital stock being issued at once, the transaction requires but one entry:

$$
\begin{aligned}
& \text { Sundry Assets . .c. . . . . . . . . . . . . } \$ 25,000.00 \\
& \text { Capital Stock. . . . . . .. . } \$ 25,000.00
\end{aligned}
$$

You will notice that Sundry Assets Account has been charged with the amount of property received. This is desirable, because it is often necessary to rearrange the values and reclassify the property before separate accounts can be opened properly.

## SPECIAL ACCOUNTING BOOKS USED BY CORPORATIONS

Necessity for Subscription Ledger. In the cases just mentioned, you will observe that after the entries have been posted Subscribers' Account will appear among the assets on the general ledger. This account is a controlling account. An individual account is also required for each subscriber. This is necessary in order to keep an accurate record and avoid confusion, especially where there is a large number of subscribers. These individual accounts may be kept in the subscription ledger, which is subsidiary to and controlled by the Subscribers' Account on the general ledger. This subscription ledger is much like the customers' ledger, and serves the purpose of showing the amount due from each subscriber.

How to Handle Installment Payments-Installment Book. Arrangements are often made allowing subscribers to pay their accounts in installments at regular intervals. In such a case the terms of payment are specified on the subscription blank; therefore it is necessary to follow up the payments very closely, as subscription rights may be forfeited if the payments are delinquent. To accomplish this, installment lists may be prepared by drawing off a list of subscribers from the subscription ledger. If found desirable, the individual accounts may be kept in the general ledger when the subscription list is used and there are only a few subscribers, thus dispensing with a subsidiary ledger. A better plan, however, is to use an installment book which is similar to a subscription ledger.

Capital Stock Ledger. The capital stock ledger is also a subsidiary ledger. It contains a record of the capital stock purchased and paid for by the various stockholders. Usually the loose leaf form is used, and each
stockholder is given one page. This ledger is controlled by the Capital Stock Account in the general ledger just as individual accounts in the subscribers' ledger are controlled by the Subscribers' Account in the general ledger.

Such a ledger contains an individual account for every stockholder, showing the number of shares bought, sold, or transferred, and balance still held. The information is posted to the capital stock ledger from the certificate book stubs. Whenever a list of stockholders is required the information can be readily obtained by simply taking a trial balance of the capital stock ledger and checking it with the controlling account, Capital Stock, in the general ledger. The capital stock ledger page is illustrated in Figure 1.
J. B. Adams

| DATE <br> 1922 | Transferred To | No. <br> Trans- <br> fer | No. <br> Certi- <br> ficate | No. <br> Shares | DATE <br> 1922 |  | No. <br> Trans- <br> fer | No. <br> Certi- <br> ficate | No. <br> Shares |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aug. 12 | R. F. Burke | 125 | 134 | 25 | July 10 <br> July 19 | P. Carl son <br> M. L. Thomas | 98 <br> 107 | 116 <br> 125 | 30 <br> 25 |

Stock Ledger Page
Figure 1. As you will observe, J. B. Adams bought 30 shares of stock from F. Carlson on July 10. These shares were represented by Certificate No. 98. The new certificate to Mr. Adams bears the number 116. Analyze the other two transactions in a similar manner. This stock ledger also serves the purpose of the stock transfer book which is explained later in the assignment.

Stock Certificate Book. Capital stock is issued in the form of certificates, as reproduced in Figure 2. These certificates are evidence of ownership of stock in the corporation. They show how many shares of capital stock each stockholder owns. These certificates are usually kept in a stock certificate book which somewhat resembles a check book, only it is much larger. The certificates are filled out and signed by the proper officials. They are then torn out of the book, leaving a stub on which a brief record of the certificate is kept.

If a capital stock ledger is not used, a list of stockholders together with the number of shares owned by each might be written up from these certificate stubs and kept on file; but when there are many stockholders it is better to keep a detailed capital stock ledger in order to avoid confusion and to have a record that is correct and complete.

Stock Transfer Book. The transfer book is a special record for all stock that is transferred from one stockholder to another. It usually con-


## Stock Certificate


 side has a form of assignment that is filled out when the stock is transferred to another party.

tains a reproduction of the assignment form on the back of the stock certificate, as shown in Figure 3.

Ledger Folio 15.
Transfer No. 213

## MODEL MOTOR CAR COMPANY

For value received I hereby sell, assign and transfer unto Charles Smith of Chicago, Illinois, Twenty-Five Shares of the Capital Stock of the above-named Company, now standing in my name on the company books, and represented by surrendered Certificate No. 111.

Witness my hand and seal this 10th day of August, 1922

New Certificate No. 415
Issued to Charles Smith
Ledger Folio No. 53

Prank Brown
By Thoma s Judy
Attorney

Stock Transfer Book
Figure 3. Every page of the book contains from four to six such transfer forms, one below the other.

The transfer book is usually closed a certain number of days before dividends are to be paid. The registered holders of stock are entitled to dividends on the date when the transfer book is closed.

It is often found more desirable not to use such a transfer book, but, instead, record all transfers on the left-hand side of the capital stock ledger, illustrated in Figure 1.

Function of Transfer Agent. Transfers of stock must, of course, be posted to the accounts affected in the stock ledger whenever stock is bought or sold. A corporation sometimes delegates this detail to a bank or trust company to act as its transfer agent. This is done mainly to gain the confidence of investors. The bank or trust company thus becomes the custodian of the stockholders' ledger and the certificate books. The duties of a transfer agent are to keep a record of transfers of shares of stock; also to act as disbursing agent for the corporation when dividends are declared. Since the transfer agent has a complete record of the stockholders he will receive the money which is to be distributed as dividends and pay it to each stockholder according to the number of shares held.

Changes in the details of stock ownership do not affect the Capital Stock Account unless an increase or decrease of stock is authorized by the state.

The Minute Book. The stockholders of a corporation, in accordance with the corporation laws, appoint certain individuals as directors, whose duty it is to manage the affairs of the corporation. The directors usually appoint the officers of the corporation. The directors are required to meet at regular intervals, and at their meetings the past transactions of the business are approved, or corrected if necessary, and future plans are agreed upon. It is necessary, therefore, that the proceedings of the directors' meetings be made a matter of record. The minute book is used for this purpose as well as to record the proceedings at the stockholders' meetings.

The minute book serves as a guide to the directors, who represent the stockholders, as well as to the officers, who carry out the policies of the directors. For this reason the minute book is one of the most important books of the corporation. The minutes furnish authority to the officers for many important transactions, which they carry out as instructed by the directors. From the minutes, also, the accountant obtains information for many important entries, such as contracts, special services, legal proceedings, etc. In fact, it is the accountant's duty in auditing important transactions which he finds recorded on the books to refer to the minute book in order to determine if such transactions were effected according to instructions laid down by directors, or if these transactions had the approval and ratification of the directors.

The Dividend Book. The dividend book contains the names of all stockholders who are to receive dividends. It shows the number of shares held, the kind of stock, rate of dividend, and amount each stockholder is to receive.

This book is the basis for entries in the cash book, when the dividends are paid.

## KINDS OF CAPITAL STOCK

The various kinds of capital stock are here explained, so that you will be familiar with the most important classes.

Par-Value Capital Stock. Par value, as used in connection with capital stock, expresses a uniform value for the shares into which authorized capital stock is divided. Par value means the face or nominal value placed on a share of stock, this value being the same for all shares of a like class. In the application for a charter it is customary to specify the number of shares as well as the amount of stock to be issued. This procedure determines what the par value will be. Usually it is fixed at $\$ 100.00$ altho it may be any amount, such as $\$ 50.00, \$ 25.00, \$ 10.00$, or $\$ 1.00$. A certificate of par-value stock was illustrated in Figure 2.

Figure 2 shows that the Model Motor Car Company has been authorized by the state to issue stock up to an amount of $\$ 500,000.00$, divided into 5,000 shares. Therefore the par value per share is $\$ 100.00$. Furthermore, this certificate No. 87 indicates that one of the stockholders owns $\$ 5,000.00$ par value of the capital stock.

Capital Stock of No Par Value. Several of the states now allow corporations to issue stock without par value. When this is done each stock certificate must show:

1. Total number of shares authorized.
2. Number of shares represented by the certificate.

Various other regulations sometimes govern the issuing of stock without par value. These all tend toward protecting the interests of the stockholders, as well as accomplishing the result of showing stockholders' interests without the use of a nominal value.

The book value of a share of no-par-value stock can be determined thus: If a stockholder owns ten shares of no-par-value stock and there are only 1,000 shares of stock (all no-par-value) outstanding, his interest amounts to $1 / 100$ of the corporation's net assets.

Preferred and Common Stock. From the standpoint of stockholders' rights there are two general classes of stock, common and preferred. Each class is recorded separately on the books. At one time it was customary to issue but one kind of stock, in which case all stockholders' interests were alike. Such stock was common stock. Later a separate class of stock was created, called preferred stock, giving the holders of such stock either preferred claims on the assets or on the earnings from their investment, or both. Therefore, instead of having an interest in common, pre-ferred-stock holders' interests precede the rights of those who hold common stock. Their investment, for example, may be preferred, since in case of dissolution or termination of the company, after creditors have been satisfied a distribution of the company's property is first made among the preferred-stock holders. When preferred stock provides first claim on profits, a fixed rate of dividend is specified. These dividends may be "cumulative," meaning that if the full rate of dividend cannot be paid out of the earnings of a given period the unpaid dividends will accumulate in favor of stockholders, and must be fully paid before any distribution of profits can be made to the common-stock holders. Noncumulative stock carries no such right.

It might appear that preferred stock is more to be desired than common stock. This is probably true in some cases, especially in a newly organized company whose earning power has not yet been fully developed. There are many cases, however, where the common stock has a higher market price, due to the fact that a corporation has been prosperous. Since the preferred-stock holders are restricted to a specified dividend, the common-stock holders might receive larger earnings than the holders of preferred stock. Due to the fact that the rights of holders of common stock and preferred stock differ separate accounts must be kept for each.

How Treasury Stock Is Recorded. Treasury stock is stock which has once been issued by the corporation and later reacquired by purchase or gift. The term is often loosely and incorrectly used for unissued stock, which is more properly called stock in the treasury. When treasury stock is acquired by purchase it should be entered on the books as an asset at its cost price. Assume that a corporation buys back $\$ 10,000.00$ worth of its own stock. The entry will be:

Treasury Stock. . . . . . . . . . . . . $\$ 10,000.00$
Cash . . . . . . . . . . . . . . . . $\$ 10,000.00$
To record the purchase of 100 shares of Com-
pany's own stock.
If treasury stock is acquired by gift the company has realized a profit of a special nature. It is necessary to keep such profit separate and distinct from the ordinary earnings due to operations. The company has given nothing in exchange for the stock so acquired. Therefore an account for donated surplus or capital surplus must be opened to record the
fact that the company has been benefited by the gift. The stock should be entered on the books as an asset at its market value, if the stock is being bought and sold on the market, or at a fair value, as shown by the financial condition of the company. This is the proper measure of the value of the asset acquired; also the amount of surplus created by the donation. The entry for recording $\$ 8,000.00$ worth of treasury stock donated by one of the stockholders will be:


```
    (or Capital Surplus)
To record the donation of }100\mathrm{ shares of the
    company's stock at current market price on
    the dats acquired (or value as shown by the
    company's financial statement).
```

When donated treasury stock is sold subsequently, it may be that it will be sold at a different price from that determined when it was donated. If the selling price is greater, it will increase the Donated Surplus or Capital Surplus Account. If the stock is sold for less, the difference will be charged against Donated Surplus Account. In either case it will indicate the actual amount of surplus which has been realized.

Stock is usually donated to corporations by the stockholders to whom it is first issued, as a means of providing the corporation with working capital. It is also frequently done as a method to meet the legal requirement that stock must be issued as "fully paid."

Bonus Stock. Frequently common stock is issued as a bonus to investors who purchase preferred stock. Any stock, however, which the corporation gives away as a bonus should be stock which it holds in the treasury, which has been originally issued in accordance with legal provisions and then reacquired. It is evident that the corporation may sell stock of this kind at any price or give it away, just as any individual stockholder has a right to make whatever disposition he pleases of his stock.

It is important for the accountant to note that treasury stock has no voting power and no dividend rights as long as it is held by the corporation, since a corporation cannot assume the fictitious position of owning a part of itself. Treasury stock, however, acquires voting power and dividend rights as soon as it is sold, because it is then in the hands of stockholders who are entitled to the usual rights and powers conveyed by the stock which they hold.

## ACCOUNTS PECULIAR TO CORPORATIONS

Altho you are already familiar with some of the accounts used in corporations, there are several that require special consideration, especially Capital Stock, Surplus, and Dividend.

Is the Capital Stock Account a Liability? The question is often asked whether the Capital Stock Account represents a liability. There is a great deal of unnecessary vagueness and misunderstanding on this point. The difficulty, however, disappears at once when we remember that the Capital Stock Account merely indicates the capital interest. The corporation is under no more obligation to return this investment of capital to the stock-
holders than a business owned by partners or a sole proprietor is bound to return the capital which they have invested. Stockholders do not have the rights of creditors. The certificates of stock in the hands of the investors in a corporation are not evidences of a debt, but are evidences of a share or interest in the ownership of the business; an interest which is, of course, returnable to the stockholder upon dissolution of the corporation if there are sufficient assets over and above the liabilities.

Purpose of the Surplus Account. In our discussion of partnerships we noted that a Drawing Account is used for each one of the partners, as it is undesirable to credit earnings and charge withdrawals directly to the Capital Accounts.

In corporation accounting it is all the more important to maintain a separate account for the current and accumulated earnings and also the charges against profits because of the fact that the capitalization is fixed by the charter and cannot be changed without authority from the state. The important difference between the accounting records of a corporation and those of a single proprietorship or a partnership lies in the record of proprietary interest.

In the corporation, ownership is expressed in two groups of accounts -the Capital Stock Account and the Surplus Account. The Capital Stock Account represents the direct investment of stockholders as is supported by a list of the stock outstanding. This account remains unchanged unless the company sells some of its unissued stock or cancels and permanently retires some of the outstanding stock. Also, as mentioned previously, the capital stock may be increased by authority from the state granting an increase in the amount of capital stock authorized thru amendment of the charter. The Surplus Account, on the other hand, receives the profits of the business as they accumulate. Each year the current profits or losses are closed into the Surplus Account. In this way profits are accumulated from year to year.

Suppose that a corporation, organized on January 1, 1921, has a net profit of $\$ 10,000.00$ for the year 1921. On December 31, when the books are closed, the net profit appearing in the Profit and Loss Account as a credit is closed into the Surplus Account thus:

December 31, 1921 Profit and Loss . . . . . $\$ 10,000.00$
Surplus. . . . . . .
$\$ 10,000.00$

> To close the net profit into surplus.

The Surplus Account will remain open on the books for the year 1922. It represents a part of the capital or net worth of the corporation, the balance appearing in the Capital Stock Account.

Part of the Surplus Account may be set aside for special appropriations. These are call "Reserves"; for example, reserve for floods, damages, etc. It must be fully understood that such appropriations out of surplus are still a subdivision of the Surplus Account. They represent part of surplus set aside which may again be returned to surplus. The resolution which provided for the appropriation can be reversed by the directors at any time, and by another resolution the amount be thrown
back into surplus and made available for dividends, if it is found that the special appropriation will not be required. The Surplus Account therefore reflects the increase or decrease in proprietary interest exclusive of the stockholders' capital investments.

Purpose of Capital Surplus Account. It is desirable to keep an entirely separate account for that surplus which is accumulated otherwise than by profits from operations. This is done primarily to maintain a conservative and safe business policy. For example, surplus arising from capital stock donated, as previously discussed in connection with treasury stock, should not be entered in the regular Surplus Account covering earnings of the business. It is credited to the Capital Surplus Account.

Likewise, an adjustment may be made of the plant and property values of a business, and if the revised figures exceed the former figures as shown on the books the difference is credited to an account called "Capital Surplus," indicating that surplus of this nature arises from an increase in the valuation of capital assets as distinguished from profits on operations. While the policy of appreciating values of fixed assets is not considered good practice generally, such appreciation sometimes arises when property values are readjusted. When land or other assets are donated to a corporation these values are charged to asset accounts and credited to capital surplus.

The reason for keeping an entirely separate account for capital surplus is to provide more accurate accounting for earnings and avoid distributing these profits as dividends. The transactions on which these profits are based are too closely related to capital investments, and if these profits were paid out to the stockholders it would result in a refund of part of their capital investment. Such profits are to be carefully distinguished from profits made by the business thru the use of the capital which the stockholders have invested. As a general rule, therefore, dividends should be paid out of the earnings of the business arising from operations.

Declaration and Payment of Dividends. Dividends are the profits that are distributed to the stockholders. They are not a liability, however, until they have been declared by the board of directors, and they cannot legally be paid until they are so declared.

Assume that the corporation referred to above has $\$ 100,000.00$ capital stock outstanding, all of which is common stock. The profits for 1921 amount to $\$ 10,000.00$. The board of directors declares a 5 per cent cash dividend on January 2, 1922. When this dividend is declared, as shown by the record in the minutes, an entry setting up the liability on the books should be made as follows:


Assuming that checks are issued to the stockholders on January 4 in payment of this dividend, the entry to be made would be:

| January 4, 1922 | Dividends Payable. . . . . $\$ 5,000.00$ <br> Cash. | 00 |
| :---: | :---: | :---: |
|  | To record the payment of dividends as declared on January 2, 1922. |  |

Dividends may, of course, be in the form of stock or scrip instead of cash.

Capital Stock Premium or Discount. Stock is sometimes sold or issued above or below par. If above par, it is said to be at a premium; if below, at a discount. Several of the states prohibit the issuing of stock at a discount, as it tends to overstate capital stock, which is not fully paid. In some cases stock is sold at a premium to establish a surplus for a newly organized business. The market price is therefore above the par value, resulting in a premium, for which cash or cash value is received. When a corporation sells stock at a premium, the excess over par value is credited either to a Premium Account or to Capital Surplus. The two following entries illustrate the proper record for stock sold at a premium and at a discount.
(a) Cash or other Property . . . . . . S
Capital Stock.
Premium on Stock (or Capital Surpius)
\$.........
\$.
.......
In this case premium on stock is a deferred credit.
(b)

$\$$.
$\$$

The discount on stock represents a deferred charge.

## CORPORATION STATEMENTS

In the case of a corporation the accountant is expected to prepare two kinds of reports and statements:

1. For the directors and corporation officials.
2. For the stockholders and the government.

The first kind of statement, namely, that for the executives, is given consideration in this assignment.

The purpose of such statements is to inform corporate officials on the financial condition and progress of the business. In the small corporation, monthly or quarterly balance sheets and profit and loss statements are sufficient. In the larger concern, however, where the officials are unable to keep in personal touch with the details, it is desirable for the accountant to keep the officers informed continually.

Information on sales, collections, bank balances, and expenditures should be reported daily. Cash receipts and disbursements should be reported weekly. The balance sheet and profit and loss statements should
be submitted at least once a month. In most cases it is desirable to furnish not only the current reports and statements but also comparative statements, covering the two or three preceding periods.

The Corporation Balance Sheet. The balance sheet of a corporation is similar in most respects to the balance sheet for any other type of business; that is, assets and liabilities are classified, as has been explained in previous assignments.

The special point to consider in a corporation balance sheet is the items in the net-worth section. They will appear somewhat as follows:


The Profit and Loss Statement. The profit and loss statement of a corporation is essentially the same as that for any other type of business, except that it has certain additional items following the net profit figure. These items are arranged somewhat like this:


In manufacturing concerns it is necessary also to prepare a manufacturing statement, which will be explained in Assignment 23. Your next assignment will present problems that arise when corporations are reorganized or when several corporations are merged into one larger organization.

## MAIN POINTS IN THIS ASSIGNMENT

In this assignment we have illustrated the following principles, that are essential to a thoro understanding of corporation accounting. As stated, a knowledge of corporation accounting is becoming more necessary because of the increase in the number of corporations.

First: Every corporation accountant should be thoroly familiar with:

1. Plan of formation, especially how to secure the charter and subscriptions for capital stock.
2. Corporation laws that control the operations of the business.

Second: Opening entries for a corporation:

1. When stock is subscribed for but not issued until paid.
2. When stock is issued immediately at the time subscriptions are received.
3. When stock is issued in direct exchange for cash.
4. When stock is sold for property other than cash.

Third: Need for special corporation books:

1. Subscription Ledger.
2. Installment Ledger.
3. Capital-Stock Ledger.
4. Stock-Certificate Book.
5. Stock-Transfer Book.
6. Minute Book.
7. Dividend Book.

Fourth: Special accounts used in corporations:

1. Capital Stock.
2. Subscription to Stock.
3. Capital Stock Subscribed.
4. Treasury Stock.
5. Premium on Capital Stock.
6. Surplus.
7. Dividends.

Fifth: Various kinds of stock:

1. Par-Value Stock and No-Par-Value Stock.
2. Preferred and Common Stock.
3. Treasury Stock and Unissued Stock.
4. Bonus Stock.

Sixth: Special consideration of certain corporation accounts:

1. Is capital stock account a liability?
2. Purpose of surplus account.
3. Capital surplus for special profits.
4. Declaration and payment of dividends.
5. How to handle premium and discount on sale of stock.

Seventh: Special features of corporation statements:

1. Balance sheet with classification of surplus.
2. Profit and loss statement with analysis of surplus and dividends.

You will find this summary of practical value in solving the following problems.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 20

1. The Standard Supply Company has just been organized. You find the following information from the various records.

The charter shows:
Capital Stock Authorized:
Preferred, 500 shares, $\$ 50,000.00$.
Common, 1,000 shares, $\$ 100,000.00$.
The minute book shows:
(a) One-half of the stock of each class is to be issued at this time.
(b) The directors have agreed to purchase a factory building and the land on which it is situated from A. J. Andrews, giving him a certificate for 300 shares of common stock in exchange for the deed to the property.

The subscription ledger shows:
Subscriptions:
L. M. Drake, 100 Shares Preferred, 50 Shares Common.
B. R. James, 50 Shares Preferred, 50 Shares Common.
D. P. Crane, 100 Shares Common.

Certificate to be issued when accounts have been paid.
The cash book shows:
The balance of the preferred stock, up to one-half of the authorized amount, has been sold for cash and certificates issued.

Make journal entries for these transactions.
2. The Western Manufacturing Company has an authorized capital of $\$ 150,000.00$ (par value of stock $\$ 100.00$ ). The capital-stock ledger shows that of this amount, 1,000 shares are outstanding in the hands of stockholders.

The minute book shows that the directors have declared a dividend of 5 per cent.

The general ledger shows a balance in the Capital Stock Account of $\$ 123,968.00$. Since shares are not issued for fractional amounts, this balance indicates that an error has been made. The bookkeeper, unfamiliar with the difference between corporation and partnership accounting, has closed profit and loss, each year, directly into Capital Account.

Annual profit and loss from the first year to date:


Make the necessary journal entries as follows:
(a) To adjust the Capital Account and set up Surplus Account.
(b) To record the dividend declared.
(c) To record cash payment of dividend.
3. The city of Dayton donated land, worth $\$ 25,000.00$, to the Chemical Corporation Company, on condition that the company construct an additional building worth $\$ 100,000.00$. This the company did. How should this transaction be entered on the books?
4. The Chicago Trading Company asks you to prepare for them a trading and profit and loss statement for the year ending December 31, 1921. You will note that they have four selling departments and that their accounts are so classified that a trading statement may be prepared for each. The following figures are furnished you and may be assumed correct. Use your ingenuity to prepare an exhibit that will be easy for your client to understand.


The merchandise inventories at the end of the year were:

| Department | A. | \$ 4,568.00 |
| :---: | :---: | :---: |
|  | B. | 10,796.00 |
| " | C. | 3,979.00 |
| " | D. | 13,288.00 |

The balance sheet surplus at the beginning of the year was $\$ 24,077.00$, and dividends declared during the year were $\$ 5,000.00$.

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

Assignment 21<br>CORPORATION ACCOUNTING REORGANIZATIONS AND MERGERS

$\mathrm{A}^{\text {LL the problems of business, when all is said and }}$ done, get down at last to the bedrock of figures, and only by intelligent, scientific analysis of figures is it possible to reach the solutions of such problems.

Geo. Wattley
Treasurer. United Retail Stores Corporation

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## CORPORATION ACCOUNTING

## reorganizations And Mergers

If you were to trace back the history of large modern corporations, you would find that many of them have undergone some change in organization since their incorporation. These changes have been made for various reason, i.e., to secure additional capital, eliminate competition, or to satisfy creditors.

For example, the National Biscuit Company was incorporated in 1908 by a consolidation of the American Biscuit and Manufacturing Company, the New York Biscuit Company, and the United States Baking Company. As a result, its business has prospered to such an extent that it now operates forty-two separate plants, with over 200 selling agencies.

The Noiseless Typewriter Company was incorporated in Delaware in 1920, to succeed the Noiseless Typewriter Company incorporated in 1914 in Connecticut, which in turn was the successor of a company incorporated in 1909.

The Nash Motors Company was incorporated in 1916, as successor to the Thomas B. Jeffery Company, Kenosha, Wis. The Maxwell Motor Corporation was organized in 1921, by merging the Maxwell Motor Company and the Chalmers Motor Corporation.

Countless other examples might be presented of changes in corporations. Perhaps in your own community you will find one or more corporations that have been organized from one or more existing businesses. That is the way that many corporations of to-day have come into existence, namely, by reorganization and merger.

Difference Between Reorganizations and Mergers. When a corporation is financially embarrassed or is unable to satisfy its creditors promptly, a reorganization committee or a receiver may be appointed to reorganize it and manage its affairs under a new plan. In this way, creditors can expect to realize on their claims. When the business is thus continued under new management, it is called a reorganization. If the business is liquidated, the assets are sold and the proceeds divided among the creditors.

When, however, a corporation is combined or consolidated with one or more corporations, the combination is called a merger. In the case of merger, one of two conditions may exist.

1. Consolidation. All the combining corporations are dissolved and a new corporation is organized. For example, the Mitchell Motors Company was organized in 1916 by combining the Mitchell-Lewis Motor Company and the plant of the Mitchell Wagon Company. The combination resulted in an entirely new corporation.
2. Absorption. One of the merging corporations continues to exist, by merely absorbing the other corporations. For example, the National Carbon Company of New York bought the assets of the National Carbon Company of N. J. The result was that the New Jersey Corporation was absorbed by the New York concern.

Accounting Procedure for Reorganizations and Mergers. Some reorganizations and mergers are naturally much more complicated than others. The more involved combinations will be taken up in one of the more advanced assignments. In this assignment we will consider only the simpler reorganizations and mergers. Whether involved or simple, the accounting procedure in each case should follow two steps:

1. Obtain all the facts of the reorganization or merger.
2. Make all the necessary entries to record these facts.

In obtaining the facts, the accountant should not only consult the records, but he should also secure information from such sources as:

1. Minutes of board of directors.
2. Terms of merger agreement.
3. Plans of reorganization as outlined by the promoter and the banks that expect to finance the reorganization, etc.
As far as the facts themselves are concerned, the problem is one of valuation, which is preliminary to the problem of accounting. Appraisals must be made by experts, agreements are made by directors and stockholders, and reorganizations are planned by committees of creditors or stockholders and promoters; all of this is done before the accountant begins his work. Whatever facts are determined, however, he must take these into consideration when making his entries, so that they will conform to the facts.

In order to illustrate the proper accounting procedure in such cases, we will present three problems, one of reorganization and two of mergers, together with their solutions. These problems as stated before are simple and uninvolved cases.

## PROBLEM 1

Reorganization of a Corporation. The following problem is taken over with some modification from/a Massachusetts C. P. A. examination. It is

BAIANGE SHEET, Dec. 31,1921

| Assets | Liabilities |
| :---: | :---: |
| Cash . . . . . . . . . . . $\$ 12,188.00$ | Accounts Payable . . . . . . $\$ 62,060.00$ |
| Accounts Receivable. . . . . 71,227.00 | No tes Payable. . . . . . . . . $60,000.00$ |
| Investments . . . . . . . . . 13,950.00 | Capital Stock. . . . . . . . . 50,000.00 |
| Inventory . . . . . . . . . . 83,312.00 | Surplus. . . . . . . . . . . . 55,497.00 |
| Fixtures . . . . . . . . . 46,880.00 |  |
| \$227,557.00 | \$227,557.00 |

typical of reorganizations, and illustrates well the numerous facts that must be considered in such cases.

A corporation with the foregoing balance sheet as at December 31, 1921, is placed in the hands of a receiver.

An examination of the books discloses the following:
Accounts Receivable are revalued as follows:


The investments were considered to be of no value. The inventories were found to contain unsalable stock to the amount of $\$ 7,525.00$.

The fixtures were bought as follows:


Fixtures are estimated to last ten years, and no depreciation has been entered in the accounts. Bills for goods received amounting to $\$ 3,512.00$ were not included in the Accounts Payable, of $\$ 62,060.00$. The receiver decides to reorganize the business with a capital stock of $\$ 125,000$ divided as follows: $\$ 50,000.00$ common, and $\$ 75,000.00,6 \%$ preferred. He offers the creditors 75 per cent of their claims in preferred stock and 25 per cent in common stock. This is accepted by creditors holding $\$ 60,000.00$ worth of notes, and $\$ 40,000.00$ worth of claims on open accounts. He offers the stockholders in the old corporation one share of common stock in the new corporation for every two shares in the old corporation. This is accepted by all of them.

Prepare the following:

1. Adjusting journal entries
2. Adjusted balance sheet
3. Entries to effect reorganization
4. Balance sheet of new corporation

## SOLUTION TO PROBLEM 1

```
1. Adjusting Journal Entries
    ADJUSTMENTS TO BALANCE SHEET OF DEC. 31, 1921.
Surplus . . . . . . . . . . . . . . . . . . . . . $14,823.75
    Reserve for Bad Debts. . . . . . . . . . . . $ 4,313.75
    Accounts Receivable. . . . . . . . . . . . . 10,510.00
    To write off shrinkage in Accounts
Surplus . . . . . . . . . . . . . . . . . . . . . $13,950.00
    Investments.
        $13,950.00
        To write off the investments which are
        wi thout value.
Surplus . . . . . . . . . . . . . . . . . . . . . $ 7,525.00
    Inventory . . . . . . . . . . . . . . . . . $ 7,525.00
        To remove from the Inventory Account the
        unsalable stock.
Surplus . . . . . . . . . . . . . . . . . . . . . $20,082.70
    Reserve for Depreciation
        $20,082.70
        The above entry is to create a reserve
        for depreciation of fixtures, based
        upon a life of ten years.
```

Purchases of fixtures and corresponding depreciation are as follows:


To bring on the books the corresponding liability for goods bought and included in the inventory.

## 2. Adjusted Balance Sheet

ADJUSTED BALANCE SHEET Dec. 31, 1921.

| Assets | Liabilities |  |
| :---: | :---: | :---: |
| Cash . . . . . . . . . \$ 12,188.00 | Accounts Payable | \$65,572.00 |
| Accounts Receivable. . . 60,717.00 | Notes Payable. | 60,000.00 |
| Inventory . . . . . . . 75,787.00 | Reserve for Bad Debts. . | 4,313.75 |
| Fixtures . . . . . . $46,880.00$ | Reserve for Depreciation | 20,082.70 |
| Deficit. . . . . . . $4,396.45$ | Capital Stock. . . . . . | 50,000.00 |
| \$199,968.45 |  | \$199,968.45 |
|  |  | +1 |

## 3. Entries to Effect Reorganization



In this problem you will notice the facts that must be considered first by the accountant before he makes his entries. Each item is properly analyzed before it is recorded in the books.

1. The shrinkage in Accounts Receivable, Investments, and Inventory must be recorded.
2. The depreciation of fixtures must be shown on the books.
3. The Accounts Payable Account must be adjusted to include the bills that have been omitted.

## PROBLEM 2

The Consolidation of Four Corporations. The following problem illustrates a merger by consolidation:

On July 1, 1922, the corporations as listed below agree to consolidate under the name of the "Southern Cotton Products Company." The new corporation is to have an authorized capital stock of $\$ 2,000,000.00$, of which $\$ 1,200,000.00$ is preferred and $\$ 800,000.00$ common stock, both classes having a par value of $\$ 100.00$ per share.

The stock is to be distributed among the four companies and the promoter as follows:

|  |  |  |  | Number of <br> Preferred |
| :--- | :--- | :--- | :--- | :--- | | Shares |
| :--- |
| Common |

It is also agreed that each of the companies is to pay its own liabilities before the merger takes place. The asset and capital stock accounts of the four concerns after the creditors have been satisfied will have the following balances:


Entries Necessitated by Merger. The accounting work necessary to carry out the merger as set forth above consists of two parts:
(a) Entries for closing the books of the old companies.
(b) Entries for opening the books of the new corporation.

## SOLUTION TO PROBLEM 2

(a) Entries for Closing the Books of the Old Companies. It is first necessary to determine the profit or loss realized by the four concerns on the sale of their business. The following chart shows clearly how this calculation is made, which may be briefly expressed in the formula:

Purchase Price - Net Worth $=$ Capital Profit or Goodwill.

| Purchase Price minus | Edwards Co. $. . . \$ 630,000$ | Franklin Co. $\$ 304,000$ | Goodwin Co $\$ 200,000$ | Harrison Co $\$ 190,000$ |
| :---: | :---: | :---: | :---: | :---: |
| Total Assets | 480,000 | 198,000 | 146,000 | 124,000 |
| Capital Profit | $\overline{\$ 150,000}$ | \$106,000 | \$ 54,000 | \$ 66,000 |

Upon the basis of this calculation, the following entries will be made on the books of each company for setting up the profit and then closing the books. You will notice here that the capital profit is not set up as an asset on the books of the selling corporations. It will, however, be set up on the books of the new corporation as one of the assets, since it represents an investment on their part.

## Closing Entries for Edwards Company are as follows:



Since it is impossible to give $1 / 5$ of a share, except when fractional rights are issued, some arrangement would probably be made by the officials of the Edwards Company to dispose of the common stock to certain of the shareholders on a definite basis in lieu of preferred shares. As a matter of practice, these shares are usually surrendered by the old stockholders direct to the office or agents of the new corporation, without having the stock of the new concern come into possession of the officers of the old concern for distribution. The entries are shown that way merely for analytical purposes.

The closing entries for the Franklin Company are as follows:
July 1, 1922 Southern Cotton Products Company. . \$304,000

Cash
Merchandise ...
Equipment
Real Estate. . . . . . . . . . . 64,000
Surplus - Capital Profit . . . 106,000
July 1, 1922 Preferred Stock, Southern Cotton
Products Company
Common Stock of Southern Cotton
Products Company
Southern Cotton Products Company
$\$ 250,000$
54,000

```
July 1, 1922 Capital Stock . . . . . . . . . . $180,000
    Surplus . . . . . . . . . . . . . . 124,000
    Preferred Stock, Southern Cotton
        Products Company.
        $250,000
    Common Stock, Southern Cotton
        Products Company. . . . . . 54,000
```

The closing entries for Goodwin Company will be:


Surplus is debited with $\$ 50,000.00$ instead of with $\$ 54,000.00$, because the Goodwin Company had a $\$ 4,000$ deficit. The net balance of the Surplus Account therefore is $\$ 50,000.00$.

The closing entries for the Harrison Company are:

| July 1, 1922 | Southern Cotton Products Company. <br> Cash <br> Merchandise. <br> Equipment. <br> Real Estate. <br> Surplus - Capital Profit | \$190,000 | $\begin{array}{r} \$ 22,000 \\ 30,000 \\ 36,000 \\ 36,000 \\ 66,000 \end{array}$ |
| :---: | :---: | :---: | :---: |
| July 1, 1922 | Preferred Stock, Southern Cotton Products Company <br> Common Stock, Southern Cotton Products Company Southern Cotton Products Company | $\begin{array}{r} \$ 160,000 \\ 30,000 \end{array}$ | \$190,000 |
| July 1, 1922 | Capital Stock <br> Surplus <br> Preferred Stock, Southern Cotton Products Company. <br> Common Stock, Southern Cotton Products Company. | $\begin{array}{r} \$ 100,000 \\ 90,000 \end{array}$ | $\$ 160,000$ 30,000 |

(b) Entries for Opening Books of New Corporation. We are giving here the opening entries as they would appear on the books of the new corporation. This is done mainly so that you may see how the books of both the buying and selling concerns are affected.



The opening entries, as you note, include the goodwill of the four combining corporations as an asset. This is proper because the new corporation has bought this goodwill. The organization expense of $\$ 40,000.00$ is set up as a deferred charge to be written off during the next few years. This is usually advised so that the value of the assets may not be inflated. You will also notice that preferred and common capital stock are recorded in separate accounts. This should always be done for statistical purposes. After all the entries are posted, the capital stock will appear in two groups of accounts:

1. Authorized Capital Stock-Common and Preferred credit balances.
2. Unissued Capital Stock-Common and Preferred debit balances.

There is no account for capital stock issued. But the amount of stock issued or outstanding may be determined by deducting the debit balance in the Unissued Capital Stock accounts from the credit balance in the Authorized Capital Stock accounts. This deduction will usually be shown in the balance sheet.

## PROBLEM 3

Corporation Merged by Absorption. The entries for a merger by absorption consist:

1. Of closing entries on the books of the old corporation.
2. Of entries for new assets and liabilities on the books of the buying corporation.

In such a case assets are often revalued at a lower amount, as in the following:

On December 31, 1921, the Walker Trading Company had total assets of $\$ 150,000.00$, total liabilities of $\$ 35,320.00$, capital stock issued, $\$ 75,000.00$,
and surplus, $\$ 39,680.00$. It decides to buy out the Smith Corporation, whose balance sheet on December 31, 1921, appears thus:

SMITH CORPORATION
BALANCE SHEET, Dec. 31, 1921.

| Cash . . . . . . . . . . $\$ 1,500.00$ | Accounts Payable . . . . . $\$ 6,000.00$Capital Stock. . . . . . . $35,000.00$Surplus. . . . . . . . . $8,000.00$ |  |
| :---: | :---: | :---: |
| Accounts Receivable. . . 7,000.00 |  |  |
| Notes Receivable . . . . 3,000.00 |  |  |
| Merchandise. . . . . . . $12,000.00$ |  |  |
| Building and Land. . . . . $25,000.00$ |  |  |
| Fixtures . . . . . . . . 500.00 |  |  |
| \$49,000.00 |  | \$49,000.00 |

The terms of purchases are as follows:

1. Accounts Receivable are valued at only $\$ 6,000.00$.
2. $\$ 2,000.00$ worth of the merchandise is considered unsalable.
3. $\$ 500.00$ of the notes receivable and uncollectible.
4. The Smith Corporation value their goodwill at $\$ 10,000.00$.
5. The stockholders of the Smith Corporation are to turn in their stock and receive $\$ 100.00$ bonds from the Walker Trading Company, in return for the shares of stock.
6. The Walker Trading Company agrees to assume all the liabilities of the Smith Corporation, as shown on the balance sheet of Dec. 31, 1921.

## SOLUTION TO PROBLEM 3

First of all the adjusting and closing entries must be made.

1. Journal Entries are made on the books of the Smith Corporation thus:

Dec. 31, 1921 Surplus. . . . . . . . . . . . $\$ 3,500.00$
Accounts Receivable . . . . . $\$ 1,000.00$
Merchandise. . . . . . . . 2,000.00
Notes Receivable. . . . . . . 500.00
To record the losses on assets.
Dec. 31, 1921 Walker Trading Company . . . . . $\$ 45,500.00$
Cash. . . . . . . . . . . $\$ 1,500.00$
Accounts Receivable . . . . . 6,000.00
Notes Receivable. . . . . . . $2,500.00$
Merchandise . . . . . . . . 10,000.00
Building and Land . . . . . . $25,000.00$
Fixtures . . . . . . . . . . 500.00
To close the asset accounts.
Dec. 31, 1921 Accounts Payable ......... $\$ 6,000.00$
Walker Trading Company. . . . . $\$ 6,000.00$
To close the liabilities.
Dec. 31, 1921 Walker Trading Company . . . . . $\$ 10,000.00$
Surplus. . . . . . . . . . $\$ 10,000.00$
To record the profit on sale for
goodwill.

| Dec. 31, 1921 | Walker Trading Company Bonds . . . $\$ 49,500.00$ Walker Trading Company. | \$49,500.00 |
| :---: | :---: | :---: |
|  | To record receipt of bonds from Walker Trading Company. |  |
| Dec. 31, 1921 | Capital Stock. . . . . . . . . . . $\$ 35,000.00$ |  |
|  | Surplus. . . . . . . . . $14,500.00$ |  |
|  | Walker Trading Company Bonds. | \$49,500.00 |
|  | To close the capital and surplus |  |
|  | accounts, and to show the dis- |  |
|  | tribution of bonds among the |  |
|  | stockholders of the Smith Cor- |  |
|  | poration. |  |

2. The Journal Entries on the books of the Walker Trading Company are also given to make the solution complete:

| Dec. 31, 1921 |  | \$55, 500.00 |
| :---: | :---: | :---: |
|  | To record the assets purchased. |  |
| Dec. 31, 1921 | Smith Corporation. . . . . . . . . $\$ 6,000.00$ Accounts Payable. | \$6,000.00 |
|  | To record the liabilities |  |
| Dec. 31, 1921 | Smith Corporation. . . . . . . $\$ 49,500.00$ Bonds Payable | \$49,500.00 |
|  | To show the issue of Bonds. |  |

Revaluation of Assets in Case of Merger. When one corporation buys out another, as in the preceding problem, the buying corporation usually revalues the assets and liabilities that it expects to take over. This is either done by an appraisal committee or by an expert appraiser.

For example, in our illustration certain assets were revalued at a lower amount. That is why the book values of the Smith Corporation's assets were corrected by the adjusting journal entries. The Walker Trading Company also accepted the revaluation and entered the assets on their books at the new valuation. Thus you see the valuation problem is of considerable importance in case of mergers, in that it determines the entries to be made on the books.

## IMPORTANT POINTS IN THIS ASSIGNMENT

This assignment is intended to give you an introduction to the problems of reorganization and mergers of corporations.

The fuller treatment is reserved for later assignments on holding companies and consolidations.

We have, however, explained and illustrated certain fundamental accounting principles that are applied in reorganizations and mergers. These
same principles will appear later in the more complicated cases. That is why it will pay you to fix these principles in mind now.

For example, you ought to master the following points:
First-In reorganization and mergers, the accountant must do two things.

1. Gather all the facts.
2. Make the entries, so that they will conform to these facts.

Second-In reorganization problems two things must be considered.

1. Settlement with creditors.
2. Reorganization expense.

Third-In mergers, two conditions may exist.

1. Merger by consolidation.
2. Merger by absorption.

Fourth-Goodwill is determined by deducting the net worth from the purchase price.

Fifth-Goodwill is entered as a capital profit on the books of the selling concerns, and as an asset on the books of the new corporation.
With these main points mastered you are ready to set up the solutions for the following problems.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 21

1. Mr. Allen holds 50 shares of a total issue of 5,000 shares in his corporation. At the time of combining with another concern to form a new corporation, goodwill was valued at $\$ 80,000$. How does Mr. Allen benefit from this new asset of $\$ 80,000$ ? What is the nominal amount of his benefit in this case?
2. A corporation about to consolidate with several others has net assets valued on the books at $\$ 116,000$, capital stock being $\$ 90,000$. The new corporation takes it over at $\$ 140,000$. What value apparently was placed on goodwill? After this goodwill was set up what was the balance of the Surplus Account just before closing the books of the old concern? Show all calculations.
3. A and B are equal partners in a trading concern, each having invested $\$ 5,000.00$ on January 1, 1921. On December 31, one of the partners took off the following trial balance before closing the nominal accounts.


Before the balance sheet and profit and loss statement can be prepared, the following items should be considered:

| Inventory Dec. 31, 1921.................................. $\$ 4,000.00$ |  |
| :---: | :---: |
| Accrued Interest Receivable. | 40.00 |
| Allowance for Depreciation: |  |
| For Furniture \& Fixtures. | 120.00 |
| For Delivery Equipment. | 400.00 |
| For Building | 225.00 |
| Unexpired Insurance | 175.00 |

(a) Make adjusting journal entries preparatory to closing the books.
(b) Set up the balance sheet and profit and loss statement.
4. On January 2, 1922, the A \& B partnership, described in problem 3, agreed to consolidate with C Company under the name of E Company.

The C Company's balance sheet appeared as follows:

## C COMPANY

BALANCE SHEET, Dec. 31, 1921

|  | ```Liabilities and Capital Accounts Payable: J. Ross & Co. . . $500.00 Wright & Co. . . . 700.00 $ 1,200.00``` |
| :---: | :---: |
| Building . . . . . . . . . $15,000.00$ | Capital Stock . . . . . . . $20,000.00$ |
| Merchandise . . . . . . . . $9,000.00$ Goodwill . . . . . . . . . $2,000.00$ | Surplus . . . . . . . . . . 7,700.00 |
| \$28,900.00 | \$28,900.00 |

The E Company is to have an authorized capital stock of $\$ 60,000.00$ of the par value of $\$ 100.00$ per share.

It gives 200 shares of the stock for the business of A \& B partnership as valued on the books of the latter, Dec. 31, 1921, after the books have been adjusted.

It gives 300 shares of the stock for the business of the C Company as it existed Dec. 31, 1921, as shown by its balance sheet.
(a) Set up all the journal entries necessary to close the ledger of the partnership A \& B in connection with the sale of the business.
(b) Prepare all journal entries necessary to close the books of the C Company in connection with the sale of their business.
(c) Prepare all journal entries necessary to open the books of the E Company, providing controlling accounts for customers and creditors.
(d) Prepare balance sheet, in proper form, of the E Company, after the entries under (c) are considered.
-

# Higher Accountancy 

PRINCIPLES
PRACTICE and'
PROCEDURE

## Elements of Accounting Practice

## Assiżnment 22 THE VOUCHER SYSTEM

MAN efficiency is to-day of far greater importance than the further development of efficiency in machinery. The greatest problem before us to-day is not so much the further improvement of machinery as the development of an increased efficiency in men.

JAMES LOGAN
Chairman of the Board and General Manager of the United States Envelope Company

# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## THE VOUCHER SYSTEM

A manufacturing corporation of the middle west grew so large that the accounting department found it necessary to adopt, from time to time, various timesaving devices in the keeping of its records.

The chief accountant had already introduced special journals for purchases and sales as well as a columnar cash book and controlling accounts. These journals, of course, saved considerable time by eliminating a large amount of detail posting which would otherwise have been necessary.

As the number of customers grew larger, it was also decided to break up the subsidiary sales ledger alphabetically into three parts, so that the work of posting could be handled by three clerks. This, of course, necessitated three controlling columns in the sales book and cash book. Such an arrangement took care of the increased sales. As the production of the concern grew larger, purchases of materials and supplies also increased. The company found it necessary to buy materials and supplies from a larger number of creditors. Many of these purchases were for small amounts, and most of them were paid within 30 days' time. In fact, there were over 150 active creditor's' accounts in the ledger, most of which remained open only for a very short time.

Besides, the ledger contained almost twice as many closed accounts with old creditors from whom the company was no longer making purchases. The result was that the general ledger was gradually becoming overcrowded with a large number of such accounts.

This increase in the number of purchases affected not only the ledger but also the purchase journal. The purchase journal which had been in use up to this time was found to be inadequate. The trouble was it was designed to take care only of purchases of material and supplies on account. All other purchases on account, such as the purchase of equipment, of office supplies, gasoline, tires, and many other similar expenditures, had to be entered in the general journal and this involved a great amount of detail posting. Small bills for telephone, coal, electric light, etc., were not recorded when they were received. They were merely filed and then entered directly in the cash book when paid.

Putting it briefly, the problem that confronted the accounting department was to devise some means of handling all purchases on account in a more effective way, so that the needs of the growing business would be met efficiently. After studying the situation carefully, the crief accountant authorized the introduction of the so-called "voucher system."

The Voucher System. The voucher system is a method of approving, recording, and distributing all expenditures which give rise to accounts payable. The term expenditures includes not only purchases of material and supplies, but also purchases of fixed assets, such as machinery, delivery equipment, and real estate, etc. It also includes all items of expense,
which are not generally thought of as purchases, such as rent, insurance, telephone, wages, etc. In other words, the voucher system expands the ordinary purchase journal into a record which contains every expenditure creating an account payable. The purchase journal proper is not designed to take care of all such purchases. It is restricted to purchases of materials or merchandise. The expansion of the purchase journal, so as to include all expenditures, necessitates the use of additional columns for expense and asset distributions. This expanded journal is called the voucher register, illustrated in Figure 4.

The voucher system includes more than the voucher register, however. It provides an actual approval on each bill or invoice presented by the creditor. Before entries are made in the register, every purchase is recorded on a voucher which is made out for each creditor. Payment of this voucher is then authorized by the financial officer and it is filed for payment according to the terms of the purchase. As soon as the voucher is approved it is recorded in the register mentioned. This does away with the creditors' accounts in the general ledger. Instead of having an account for each creditor, there is a voucher for each creditor, covering his individual bills or invoices. Since the voucher is made out before the amount is entered in the voucher register, we shall describe the voucher first.

The Voucher Defined and Explained. In a broad sense, a voucher is a statement which certifies or verifies the correctness of a transaction. Any document which sufficiently identifies a payment, a credit, or a charge to the proper person may be called a voucher. Under the voucher system, however, the voucher is a more or less formal document which shows that a particular bill of items has been paid, or is to be paid.

A separate voucher is not made up for each purchase invoice, but all the invoices to be paid to a creditor for a definite period are assembled into one voucher. For example, the voucher illustrated in Figure 1 is for three invoices from Adams \& Ellinger. The voucher is usually typed in duplicate or triplicate, to meet the needs of the office. In the particular voucher illustrated, the original is called a voucher check, because it is a voucher with the check attached. The duplicate is called the office voucher, to which are attached the invoices it covers. On the back of this copy are written the amounts to be paid and the accounts to be charged. The triplicate, when used, is for filing under the name of the creditor.

The Voucher Check. The voucher check, as given in Figure 1, consists of two parts, the voucher and the attached check. The check is very much like the ordinary bank check, only it is attached to the voucher. When the check is properly signed and recorded in the check register, illustrated in Figure 5, the voucher check is folded and mailed to the party from whom the purchase was made. When the voucher check is received, it is deposited at the creditor's bank.

There is considerable objection to this method because it often gives too much publicity to the transactions for which the check is issued, and this is undesirable. Moreover, banks object to the folded voucher checks since they are inconvenient to handle. To eliminate these objections, the voucher check is now usually provided with perforations between the
check and the voucher, as illutrated in Figure 1, so that the payee can detach the voucher before depositing the check. The detached voucher is then filed, as the basis for the entry of the remittance on the creditor's books.

| THE SMITH MOTOR COMPANY Chicago, Illinois |  |  |  |  |  |  | Voucher No. 54 <br> Check No. $\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pay to the Order of: <br> Date $\underset{\text { Jan. } 18 \quad 1922}{ }$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Date | Your <br> Invoice <br> No. |  | AmountofInvoice $\|$ |  | CashDiscount |  | Freight | Net Amount |  |
| 1/12/22 | 284 | Motor Parts | 82 | 00 | 1 | 64 |  | 80 | 36 |
| 1/15/22 | 362 | Castings | 110 | 60 | 2 | 21 |  | 108 | 39 |
| 1/17/22' | 431 | Supplies | 200 | 00 | 4 | 00 |  | 196 | 00 |
|  |  | Totals | 392 | 60 |  | 85 |  | 384 | 75 |

The attached check is in full payment of the above items and your indorsement will be considered an acceptance as such.

If correct, detach statement for your reference.
If incorrect, return check explaining difference.
THE SMITH MOTOR COMPANY
Chicago, Illinois
The Voucher Check
Figure 1.-The above voucher check is sent to the creditor in payment of account. On the back of the check, there is printed in a blank space provided for the indorsement, some such phrase as: "The indorsement of this check will be considered an acceptance in full payment for invoices covered by it." The amount of the check is typed in figures, but may also be written with a check protectograph.

The Office Voucher. The duplicate form of the voucher is the office voucher, shown in Figure 2. On the back of this voucher the account distribution is provided, as illustrated in Figure 3. From the invoices or papers attached, the voucher clerk will record on the reverse side the amounts to be charged to each account.

Let us suppose, for example, that we have received a tax bill for taxes on real estate. This bill is vouchered in the manner explained. Assume that an accrued liability had been set up for these taxes monthly by debiting Taxes Expense and crediting Accrued Taxes Parable with $1 / 12$ of the estimated yearly taxes. The account distribution on this voucher would
show a debit to Accrued Taxes Payable and a credit to Vouchers Payable. In case the tax bill is more than the estimate, then an adjusting journal entry should be made debiting Capital or Surplus and crediting Accrued Taxes Payable with the difference between the estimated amount and amount of the bill. Surplus is debited because the monthly charges for taxes had been too small, and this resulted in overstating profits for the previous year, which had been carried to Surplus.

You will observe that there is a complete double entry on this voucher, because Vouchers Payable is credited with the total amount of the items debited to various expense accounts.

| THE SMITH MOTOR COMPANYChicago, Illinois |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Date | Your <br> Invoice <br> No. | Description | $\begin{gathered} \text { Amount } \\ \text { of } \\ \text { Invoice } \end{gathered}$ |  | Cash Discount |  | Freight | Net Amount |  |
| 1/12/22 | 284 | Motor Parts | 82 | 00 | 1 | 64 | $\cdots$ | 80 36 <br> 108 39 <br> 196 00 <br> 384 75 <br>   <br>   |  |
| 1/15/22 | 362 | Castings | 110 | 60 | 2 | 21 |  |  |  |
| 1/17/22 | 431 | Supplies |  | 00 | 4 | 0085 |  |  |  |
|  |  | Total |  |  |  |  |  |  |  |
| Prices O. K.'d by $\qquad$ Distribution by $\qquad$ <br> Extensions Checked by $\qquad$ Entered in Vo. Reg. by $\qquad$ <br> Examined by $\qquad$ Approved by $\qquad$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Carbon Copy of Voucher Check

Figure 2.-The above voucher is a carbon copy of the voucher check, to which all invoices are attached and distribution made on the reverse side, as shown in Figure 3.

Vouchers Should Be Numbered Consecutively. After the bills have been verified and the distribution properly recorded on the voucher, the voucher is given a number and passed to the accountant for approval. It is then recorded in the voucher register. Vouchers should be numbered consecutively. They should also be entered numerically in the voucher register.


## Reverse Side of Voucher

Figure 3.-Account distribution is made on the reverse side of the voucher, and all papers or invoices are stapled to voucher. The voucher is then recorded in the Voucher Register. After payment is made, the voucher is folded and filed in a drawer in numerical order by voucher number for future reference.

One method of numbering vouchers is to prefix the number of the month to the voucher number and begin a new set of numbers each month. For example, August is the eighth month. Therefore, the figure 8 is prefixed to the voucher numbers. Thus 801 to 899 would be the voucher numbers to be used consecutively for vouchers issued during the month of August; 901 to 999 , for the month of September, and so on. With this method, the voucher number will indicate in which month the voucher was issued.

Form of the Voucher Register. The voucher register or the vouchers payable register, as it is sometimes called, is the book of original entry in which the voucher and its distribution is recorded. This register is a journal so far as its scheme of debits and credits is concerned. As mentioned before, it is the purchase journal in expanded form. It usually has columns for:

> Date.
> Name of creditor or description of entry. Voucher number. Vouchers payable, in which total amount of each voucher is entered. Check number and date of payment. Distribution.

There will be as many columns for the distribution of charges as the requirements of the business demand. If there are many items to be charged to the same account during the month, a column should be provided for that account, so that the total of that column may be posted at the end of the month. If there are only one or two charges to an account during the month, it will not be worth while to provide a separate column for the account. Such items would be entered in a general ledger or sundries column and posted separately to the account in the general ledger. These separate postings are made currently, that is, before the totals are posted.

The voucher register, therefore, has various forms and rulings for different businesses. This is due to the fact that the information desired is seldom the same in any two businesses. The form illustrated in Figure 4 is typical of what is being used.

As you examine the voucher register and the check register forms of Figures 4 and 5, you will notice broken lines, which indicate that certain transactions have been omitted. Ordinarily each sheet would be totaled daily and the footings carried forward to the following page, so that the totals on the last page would represent the total transactions for the month.

Often the size of a voucher register can be reduced by having a short flyleaf inserted between the right-hand and the left-hand side of the sheet. Columns are ruled on this flyleaf for accounts, as required. Such an arrangement is convenient when the voucher register is in the loose-leaf form.

Effect of the Voucher System on the Cash Disbursements Book orCheck Register. When the voucher system is not used, the cash disbursements book, or check register, as it is often called, would contain numerous columins for various classes of expenses. One of the advantages of the
voucher system is that the check register is relieved of this detail account distribution. All cash paid out is entered in the total column of the cash book and these items are entered in the voucher register in a special column for payments. You should bear in mind that under the voucher system-

All payable items of every nature and description are to be entered in the voucher register as a credit to "Vouchers Payable" and are to be distributed to the proper expense accounts or balance sheet accounts.

Illustration of Voucher System. We shall now take a practical case and trace some of the transactions of the Smith Motor Company into the voucher register. It will not be necessary to show all transactions, but enough typical transactions will be shown to make clear how the voucher system is installed and operated.

The Smith Motor Company makes motors. Most of the parts are purchased from other concerns, so that the manufacturing consists chiefly in the assembling of these parts into the complete motor.

This company was using a purchase journal and had on its ledger numerous accounts with creditors. Furthermore, the cash disbursements record had become very unwieldy because expenses were necessarily classified in it. Then, too, expenses were incurred on account in one month and no record was made of them until they were paid, perhaps 30 days later. It was decided on January 1, 1922, to adopt the voucher system so that the creditors' accounts could be eliminated from the general ledger, and expenses could be properly apportioned to the month to which they belonged. In this way, the distribution for all payments were centered in the voucher register.

How the Voucher System Is Started. Since the voucher system does away with creditors' accounts in the general ledger, the place to begin is with these accounts.

On December 31, 1921, the Smith Motor Company had 45 creditors' accounts on its general ledger, with a total credit balance of $\$ 32,510.00$. Since it was decided to use the voucher system, the accountant closed the Accounts Payable accounts by debiting each creditor's account. Then he made out one voucher for each creditor, attached to his voucher the invoices due each, and filed the vouchers numerically.

From these vouchers he made entries in the voucher register, as shown under date of January 3, 1922. We show the entries only for vouchers Nos. 1, 2, and 3.

$$
\begin{aligned}
& \text { Harry Ellis. . . . . . . . . . . . . . . . . . . . . . . . . \$ } 800.00 \\
& \text { Adams \& Ellinger . . . . . . . . . . . . . . . . . . . . . . . 1,125.50 } \\
& \text { Brown \& Company. } \\
& 375.50
\end{aligned}
$$

You understand, of course, that similar entries were made for all the other creditors. The three entries are sufficient to show you how to start the voucher system and make entries in the voucher register. Observe especially the debits and credits for these three creditors in the voucher register. The credits are entered in the vouchers payable column and the debits are entered in the general ledger column, and posted as debits to the Accounts Payable Accomnt. The debits are placed in the general

VOUCHER REGISTER


Figure 4.-Voucher Register-left-hand side of sheet.


Figure 4.-Voucher Register-right-hand side of sheet.

## CHECK REGISTER



Figure 5.- Vhe Cneck Kegister.
ledger column, because there is no column in the register for the Accounts Payable Account.

How the Voucher System Is Operated. Now that the voucher register has been opened, we are prepared to enter the transactions for January. This we have done in part in the voucher register of Figure 4 and the check register of Figure 5.

The following transactions have been properly entered. Trace each transaction into the forms and note how they are recorded. In each case it is assumed that vouchers and voucher checks are first prepared for the transactions similar to the forms illustrated in Figures 2 and 3. Then the entries are made from the vouchers.

## TRANSACTIONS TO BE ENTERED IN THE VOUCHER REGISTER AND CHECK REGISTER

January 3, 1922
In order to take advantage of a 2 per cent discount, the invoices were taken out of file and paid.

```
12/26/21, Harry Ellis. . . . . . . . . . . . . . . . . . . . . $ 800.00
12/27/21, Adams & Ellinger . . . . . . . . . . . . . . . . . 1,125.50
12/30/21,}\mathrm{ , Brown & Company . . . . . . . . . . . . . . . . . . . }\mp@subsup{}{375.50}{
```

The voucher checks were approved for payment and recorded in the check register.

## Jandary 4

Voucher No. 46, to Chicago \& Northwestern Railway Company, for $\$ 47.50$, freight on goods shipped, was issued and approved for payment. (Entry in voucher register and check register.)

Goods received and invoice for $\$ 1,185.25$, net 30 days, from H. D. Bartlett \& Company, for motor parts. Voucher No. 47 was issued, but put in the unpaid file to be paid at a later date. (Entry in voucher register only.)

## January 5

One hundred tons of coal @ $\$ 6.50$ per ton delivered by the Corry Coal Company. Invoice placed in file to be vouchered later in the month.

Invoices from J. H. Rastall for $\$ 87.50$ and $\$ 33.85$, for factory supplies shipped, were vouchered on voucher No. 48 and approved for payment. (Entry in voucher register and check register.)

## January 7

Factory pay roll for the week, as follows:


Voucher No. 49 was issued and check cashed at the bank. The cash is used to pay off the men. (Entry in voucher register and check register.) Note especially the distribution in the columns for direct labor and indirect labor.

The voucher check is also recorded in the check register as you will observe, but note that the check number is 5 and the voucher number is 49. The check number may not always be the same as the voucher number. The voucher checks, as they are approved for payment, are recorded consecutively by check number in the check register. Thus, we have a complete cross reference between the check number and voucher number when the date and check number is recorded in the voucher register in the line in which the voucher entry was formerly made.

## January 11

Voucher No. 50, issued for invoices received from Jacob Baner, for factory supplies, terms, 2 per cent 10 days, amount, $\$ 187.50$. (Entry in voucher register.)

January 13
Two hundred tons of coal @ $\$ 6.50$ per ton, delivered by the Corry Coal Company, Voucher No. 51 issued to cover invoices, including previous delivery of 100 tons, total $\$ 1,950.00$.

## January 14

Factory pay roll for the week, as follows:
Direct
Indirect Labor . . . . . . . . . . . . . . . . . . . . . . . . . . . $\frac{\$ 3,935.10}{516.40}$

Voucher No. 52 is issued and voucher check is cashed at the bank. The money is then put up in envelopes and paid out to the workmen. (Entry in voucher register and check register.)

The following vouchers were taken out of the unpaid file, approved for payment, and recorded in check register:

```
Voucher No. 48 J. H. Rastal1. . . . . . . . . . . . . . . . . . $121. 35
Voucher No. }50\mathrm{ Jacob Bauer. . . . . . . . . . . . . . . . . . . 187.50
```

Voucher No. 53, issued to New York Central Railroad Company, for $\$ 87.20$, for freight on raw materials received from Adams \& Ellinger. (Entry in voucher register and check register.)

## January 18

Voucher No. 54 was issued in favor of Adams \& Ellinger for invoices of January 12, 15 , and 17 , aggregating $\$ 392.60$. This voucher was approved for payment. (Entry in voucher register and check register.)

You should refer to the voucher and voucher check forms illustrated in this assignment and note that these transactions are recorded as they would appear on the voucher.

January 19
Office pay roll for first half of the month, as follows:

```
Salesmen's Salaries. . . . . . . . . . . . . . . . . . . . . $1,800.00
Office Salaries. . . . . . . . . . . . . . . . . . . . . . . 750.00
$2,550.00
```

The pay roll distribution was attached to voucher No. 55 and check was cashed at the bank, the money being used to pay employes. (Entry in voucher register and check register.)

## January 19

The petty cashier having nearly exhausted his Imprest Fund, presented a statement to the general cashier showing the following disbursements:


Voucher No. 56 was issued in favor of the Imprest Fund and was cashed, so that the fund was brought back to its original amount, $\$ 150.00$. (Entry in voucher register and check register.)

January 20
In order to put the factory in better working condition, certain additions and improvements were made to the building by a contractor, Joseph Duncan. He completed the work and presented his bill, amounting to $\$ 1,500.00$. He offered a discount of 2 per cent if paid before the first of
the month. The company took advantage of this discount and issued voucher No. 57 for $\$ 1,470.00$. (Entry in voucher register and check register.)

This transaction illustrates a principle that you should always bear in mind, namely, a cash discount on a capital expenditure is never credited to Cash Discount on Purchases. Such discount is not an earning from operations; therefore, it is not credited to financial income. It should be deducted from the invoice and considered as a reduction in the cost of the asset, just as the amount of a trade discount is deducted from an invoice.

Jandary 28
The factory pay roll for the week was as follows:


Voucher 78 was issued to cover this pay roll, and recorded in the voucher register. This voucher was paid with check No. 24. (Entry in voucher register and check register.)

## January 31

The accrued factory labor for January 30 and 31 amounted to $\$ 512.00$, distributed as follows:


Voucher 79 was issued to cover this accrued labor charge, and recorded in the voucher register. The payment for this voucher was not made until February 4, the end of the next week.

When the pay roll was prepared on February 4, for the week, the distribution was made as follows:


A voucher would be issued on February 4 for $\$ 5,311.35$ and entered in voucher register as a credit to Vouchers Payable. As the February transactions are not shown in the voucher register, the entry is merely explained. The amount of accrued labor January 31 would be entered in the general ledger column and posted separately to the debit of Vouchers Payable. This debit posting would then offset the credit to Vouchers Payable for $\$ 512.00$, made for accrued wages on January 31, in the voucher register for January. Voucher 80 was issued on January 31 for office pay roll, amounting to $\$ 2,550$. (Entry in voucher register and in check register.)

Posting from Voucher Register. 'The postings to be made from the voucher register on January 31 are easy to understand. The footings indicated in the voucher register represent the totals for the month of January. They are summarized as follows:

Raw Materials. . . . . . . . . . . . . . . . $\$ 12,760.50$
Preight and Cartage in ......1,185.15
Indirect Labor
5,870.50
Factory Supplies 810.00
Repairs to Machinery and Equipment . . . . . . . . 415.00
Heat, Light, and Power . . . . . . . . . . . . . 2,182.50
Miscellaneous Factory Expenses . . . . . . . . 22.25
Selling Expenses . . . . . . . . . . . . . $3,600.00$
Traveling Expense. . . . . . . . . . . . . . 228.30
Advertising. . . . . . . . . . . . . . . . . . . 55.75
Freight and Cartage Account. . . . . . . . . . . 113.86
Miscellaneous Selling Expenses . . . . . . . . 334.50
Office Salaries. . . . . . . . . . . . . . . $1,500.00$
Office Supplies. . . . . . . . . . . . . . . 88.75
Telephone and Telegraph. . . . . . . . . . . . 11.20
Stationery and Printing. . . . . . . . . . . . . . 34.10
Miscellaneous Expenses . . . . . . . . . . . 28.85
General Ledger Accounts. . . . . . . . . . . . 5, 321.35

Vouchers Payable
$\$ 49,872.66$
From the voucher register, all the above amounts are posted to the debit side of the accounts, except the total in the general ledger column. In this column, each item has already been posted individually as a debit to the account indicated in the account column, provided postings were made currently. The page number of the general ledger on which the account appears is recorded in the folio column.

The sum of the debits agrees with the total of the vouchers payable column which is posted to the credit of the Vouchers Payable Account in the general ledger.

Postings from the Check Register Book. After posting the voucher register, the next step is to post the totals of the check register. The total amount, $\$ 43,810.12$, of the vouchers payable column is posted to the debit of Vouchers Payable Account; the cash discount column, amounting to $\$ 382.05$, is posted to the credit of Cash Discount on Purchases Account. The cash withdrawal column is posted to the credit of Cash in Bank Account.

After the postings have been made to the Vouchers Payable Account, it will appear on the general ledger as follows:

VOUCHERS PAYABLE


Listing the Unpaid Vouchers-Use of Unpaid File. You will see from the above account that there is a credit balance of $\$ 6,062.54$ on January 31. If all the vouchers for the month were shown in the voucher register form in Figure 4, it would be necessary to list only the unpaid vouchers and total the amounts to reconcile with the credit balance of Vouchers Payable.

The unpaid vouchers of the Smith Motor Company were listed as follows:


We have previously mentioned the fact that vouchers are kept in an unpaid file until paid. Then when they are paid, they are filed numerically by voucher number in a paid file. The unpaid vouchers were obtained from file, and the correctness of the above list was verified. This list is somewhat like a summary of a subsidiary creditors' ledger, which reconciles with its controlling account, Accounts Payable. With the voucher system, however, individual accounts are not kept with creditors. The voucher register, together with the voucher file, takes the place of such a subsidiary ledger.

Index of Creditors' Vouchers. Sometimes objection is raised to the voucher system because it does not give a record of the volume of business done with each creditor. It is, as you know, often desirable to make reference to past transactions with creditors. This would be very difficult if the vouchers were not numbered.

The Snith Motor Company therefore kept an alphabetical index of creditors' vouchers, on which were shown the voucher number and the amount of each voucher. This is a card index, each creditor being provided with a card on which are listed the vouchers recording the business done with him. These cards are then put in a drawer and filed in alphabetical order by firm name.

Another method of providing an index to creditors is to make a carbon copy of the office voucher. The reverse side of this copy would not have the distribution as does the office voucher. The carbons are filed in a drawer alphabetically by firm name. Reference to this file will show the voucher numbers which have been issued. The vouchers may then be obtained from the voucher file for detail information.

Vouchers Without Attached Checks. Still another method leads to the introduction of a set of voucher forms, which are illustrated in Figure 6.

In this case, the check is not made up at the same time that the voucher is. The voucher and check are kept separate. The invoices and papers are attached to the back of the voucher and distribution is made on the face. After the voucher is entered in the voucher register, it is placed in an unpaid voucher file or it is passed to the proper disbursing officer for immediate payment.

Quite frequently a voucher is not approved for payment immediately. Therefore, the check number, which is also consecutively used, is not the same as the voucher number. When the voucher is approved for payment, a voucher check is issued. This check number has a statement


Voucher with Distribution on Face
Figure 6.-Here is another voucher, somewhat different in form (size $81 / 2 \times 6$ ). Instead of folding and placing distribution on reverse side, the voucher clerk will attach all invoices and papers to back of this voucher and make all distribution on face. When payment has been made, the voucher is filed in a drawer in numerical order by voucher number.
attached to the left hand of the check, which is filled out so as to enable the payee to properly apply the remittance. A convenient arrangement is to have these checks, which are the width of the ordinary correspondence paper, set up on a sheet of paper in blocks of three with perforations between them. By the use of carbon paper, duplicate copies of the checks can be made. The block of checks is slipped into a typewriter and the information to be filled out is taken from the voucher itself. Thus the typist can make up three different checks from vouchers before taking the sheet from the typewriter. Otherwise, if the checks are not arranged in this manner, the typist must put in and take out the papers three times. The checks can also be made in duplicate. The check number and the date of payment are recorded on the voucher.

The vouchers are put in a paid file in numerical order by voucher number and the duplicate checks are filed alphabetically in a drawer. With this method there is a complete cross reference between the voucher file and the check file. For example, the accountant may wish to find out what has been paid to Adams \& Ellinger. He will go to the duplicate check file and note the checks that have been issued. Each check shows the number of the voucher for which payment is made. He can then go to the voucher file and get the complete details from the voucher.

## How Purchase Returns and Allowances Are Handled in a Voucher

 System. If adjustments for returns and allowances could be made before the voucher for the transaction is prepared, then the net amount to be paid would be the amount of the voucher. This, however, is not possible in most cases. Usually adjustments must be made after the voucher has been made out.F'or example, two or three weeks after the voucher is made, an overpayment may have to be refunded or some material may have to be returned. The deduction must then be made thru another voucher. For this deduction, Raw Materials, or any other account that was previously charged, would be credited and Vouchers Payable debited. To accomplish this, the distribution is entered on the voucher in red ink figures and recorded also in the voucher register in red figures, both in the vouchers payable column and in the distribution column affected by the allowance. In adding up the columns of the voucher register, the sum of the red ink figures is deducted from the total black ink figures to determine the net total.

Partial Payments of Vouchers. The voucher system usually implies the payment of each voucher in full. If, however, the concern is not in a position to pay some voucher in full, and wishes to make a partial payment on it, it will be necessary, in case the voucher check is issued at the same time as the voucher, to cancel the original voucher and to make two new ones, one for the amount to be paid and another for the unpaid portion. The amount of the two new vouchers should be recorded on the voucher register in the general ledger column and posted to the debit of Vouchers Payable.

If the business is in the habit of making many partial payments, the complete use of the voucher system may have to be abandoned. This
objection is overcome in part at least if the voucher check, like the one illustrated in Figure 7, is used, because voucher checks can be issued independently of the voucher. In this case, the date, check number, and the amount of partial payments are recorded on the back of the voucher.


## Vuucher Check Separate from Voucher

Figure 7.-This voucher check is issued in payment of the above voucher. All the information to be filled in is obtained by a typist from the voucher. When properly signed, this check is folded on the line between statement and body of check so that statement is folded over back of check. The check is then placed in a regular sized, visible envelope, thus saving time in addressing envelopes. The size of this voucher check is $31 / 2 \times 81 / 2$ inches.

The Journal Voucher. When special journals are used, such as the voucher register, check register, sales book, and note registers, most transactions will be recorded in these books. There are certain entries, however, which cannot be entered in these books, because of their unusual nature. These transactions are therefore recorded in the general journal.

For example, the opening and closing entries, periodic adjustments for accrued and deferred items, and adjustments for depreciation and loss on uncollectible accounts, and any other unusual transactions are the sort of entries that must be made thru the journal.

In the case of such transactions, it is important that all the details that are necessary to explain or verify the entries be readily available. It frequently happens that the correctness of a journal entry is questioned by the auditor. If all the evidence can be quickly drawn from the voucher file, supporting or authorizing the entry, not only is much time saved, but
the bookkeeper is relieved of any personal responsibility that might be charged to him for an entry that is not in accord with good accounting principles. It is desirable, therefore, to have every journal entry supported by a journal voucher.

The forms of the journal voucher are usually very simple, as illustrated in Figure 8.

| JOURNAL VOUCHER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 120 |  |
| Date September 30 19 22 |  |  |  |  |
| ACCOUNTS | DR. |  | CR. |  |
| Surplus | \$6,000 | 00 |  |  |
| Dividends Payablo |  |  | \$6,000 | 00 |
| Explanation The board of directors declare a 6 per cent cash dividend on $\$ 100,000$ |  |  |  |  |
| worth of preferred. stock. The dividends are payable not later than October 15, 1922 |  |  |  |  |
| Made by $\quad$ R. Calhoun | Authorized by | S. Smith |  |  |
| Checked by Paul Jones | Entered Journal Page |  |  |  |

The Journal Voucher
Figure 8.-In this journal voucher the explanation is given in full on the face of the voucher. In some journal vouchers the explanation is recorded on the reverse side. In any case, the voucher gives the bookkeeper authority to bring the declaration of dividends into the records.

Journal vouchers are numbered consecutively. They form the basis for entries in the general journal in the same consecutive order. When the voucher is prepared, dated, signed, and properly approved, it is recorded by the bookkeeper in the general journal, just like ordinary vouchers are recorded in the voucher register. In recording, no particulars are given except the journal voucher number, date, accounts to be debited and credited, and the amounts. The journal voucher with all supporting papers attached is then filed in a drawer, separate from other vouchers, in nimerical order by journal voucher number for future reference.

In some businesses journal vouchers are made in duplicate. The original is then filed in a loose-leaf binder, which virtually takes the place of the general journal. The duplicate is filed away with all necessary papers and correspondence attached. In this way time is saved, since it is not necessary to copy the debits and credits in a bound journal.

Advantages of the Voucher System. You have now become familiar with the operations of the voucher system. Let us, in conclusion, review briefly some of its advantages.

1. It results in a great saving of labor, since there is no posting to individual accounts of creditors.
2. It requires that a formal voucher, properly approved, be issued, thus preventing the unauthorized payment of money.
3. It results in a uniformity in the method of treating all payable items.
4. All payable items are distributed in one book of original entry.

## MAIN POINTS IN THIS ASSIGNMENT

Thruout this assignment the following principles have been illustrated and explained. They are of prime importance if you wish to understand the purpose and operation of the voucher system.

First: The voucher system meets the needs of certain businesses, especially large manufacturing concerns. The advantages have been summarized above.

Second: The voucher system uses the following forms and records:

1. The voucher check.
2. The office voucher.
3. The voucher register.
4. The check register.

Be sure that you understand the forms as illustrated in the assignment. If necessary, refer to them several times so that you will become familiar with their use.

Third: In starting a voucher system, each creditor's account on the general ledger must be closed. A voucher is made out for each creditor, and from these vouchers entries are made in the voucher register. The vouchers are filed in an unpaid voucher file.

Fourth: Payment of vouchers, after the vouchers are properly authorized, is made thru the check register.

Fifth: At the end of the period the voucher register is posted by totals, except the general ledger column. Items in this column are posted separately and currently.

Sixth: The check register is also posted at the end of the period, as illustrated in the assignment.
Seventh: Purchase returns and allowances are handled thru new vouchers.

Eighth: Journal vouchers are used as a basis for general journal entries covering non-cash transactions.

If you feel that you do not understand any of these points, you will save time by rereading, now, certain parts of the assignment. In this way you will find less difficulty in solving the following problems.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 22

You are to record on a voucher register and check register the following transactions of the BROWN SULKY PLOW COMPANY for the month of June, 1922.

The Brown Sulky Plow Company is engaged in the manufacture of Sulky plows. The voucher system has been used satisfactorily for a long time. The voucher and voucher check forms used are those illustrated in the latter part of this lesson. The voucher check has attached on the left end a statement describing the invoices or other items for which payment is made. The system of numbering vouchers provided that the number of the month should be prefixed to the consecutive numbers. Therefore, the vouchers for the month of May were numbered consecutively from 501. The voucher numbers for the month of June should also be numbered consecutively from 601 to 699 , or the last number used if less than 100 vouchers are issued. For the month of June the voucher checks start with number 325.

## June 1

There was a credit balance on May 31 of $\$ 8,743.20$ in Vouchers Payable Account. The list of vouchers in the unpaid file was as follows:


Voucher No. 601, issued to pay the New York Central Railroad Company $\$ 207.50$, freight on raw materials received from the Adams Machine Company. Check No. 325 was issued in payment.

Voucher No. 536 was taken out of the unpaid file and approved for payment in order to take advantage of a discount of 2 per cent.

## June 3

Received bill from the Chicago Printing Company for $\$ 442.50$, for which $\$ 312.00$ was for circulars advertising plows and $\$ 130.50$ for stationery and printing. A voucher was issued and approved for payment.

You may fill out the blank voucher in your lesson, using the above transactions. Also write the voucher check for $\$ 442.50$. You need not send these forms to the University. This suggestion is given that you may familiarize yourself with the use of the voucher forms.

## June 5

Goods, together with the invoice, amounting to $\$ 1,685.50$ were received from Best Drop Forge Works. Invoice was approved, and voucher No. 603 was issued, recorded, and placed in the unpaid file.

Received invoice from Adams Machinery Company dated June 1, for raw materials received, amount $\$ 2,995.00$, terms $2 \% / 10$ days. Voucher No. 604 was issued to cover this invoice.

## June 6

A voucher was issued for pay roll distribution of factory pay roll, week ending June 3, as follows:


A voucher check was issued for $\$ 4,075.31$ plus accrued wages, covered by voucher 552 , to the order of pay roll and cashed at the bank. The money was brought back to the office and put up into envelopes to be given out to the workmen.

## June 8

Voucher numbers 548 and 603 were taken out of the unpaid file and a voucher check was issued to cover both vouchers, less 2 per cent discount.

June 10
A note of $\$ 1,000$ with 6 per cent interest for six months was due. A voucher and check were issued in favor of Stahl Steel Company for the total amount. (Charge interest to Accrued Interest.)

Out of a petty cash fund of $\$ 100$ the following disbursements were made:

```
Stationery and Printing . . . . . . . . . . . . . . . . . . . . . $16.45
Shop Supplies . . . . . . . . . . . . . . . . . . . . . . . . . . 48.90
Office Supplies
24.25
```

$\$ 89.60$
From the statement prepared, a voucher was issued and a check was made out in favor of the cashier. The cashier cashed the check and his petty cash fund was thereby replenished. Voucher covering invoice from Adams Machinery Company approved for payment and discount taken.

## June 13

Freight amounting to $\$ 48.75$ was paid to Chicago \& Northwestern Railway Company on a shipment of goods sent to a customer, the terms being F.O.B. destination.

Factory pay roll for the week ending June 10 was as follows:


A voucher was issued and the workmen were paid.

June 15
Goods and invoice received from the Stahl Steel Company, amount $\$ 2,613.25$, terms 2 per cent 10 days, net 30 . Voucher was issued and held for payment in unpaid file.

Office pay roll for the first half of the month was as follows:

| Factory Administration | .... | . | . | . | . | . | . |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

A voucher was issued and voucher check prepared for the total amount of pay roll. This voucher check was cashed and money used to pay office employes.

## June 19

Received invoice from Hubbard \& Company for a boring machine to be used in the factory, amount $\$ 625.00,10$ per cent off for cash. A voucher and a voucher check were issued at once.

June 20
Received from the Inland Foundry Company goods and invoices amounting to $\$ 2,303.00$. Invoice not vouchered until another shipment was received on June 24.

Factory pay roll for week ending June 17 was as follows:


A voucher was issued and the money used to pay workmen.
June 23
The cashier presented a statement of petty cash disbursements as follows:
Traveling Expense . . . . . . . . . . . . . . . . . . . . . . .
office Supplies
Stationery and Printing
Miscellaneous General Expenses

A voucher was prepared and the cashier reimbursed.
June 24
Another shipment from the Inland Foundry Company received with invoice amounting to $\$ 1,200.00$, terms net 30 days. The previous invoice together with this one was vouchered and the voucher recorded in the voucher register.

Freight was also paid to the Pennsylvania Railroad Company, amounting to $\$ 28.10$ on the above shipment.

## June 27

Bill received from the U. S. Advertising Company for advertising services rendered. Voucher issued and put in unpaid file. Amount $\$ 300.00$.

Factory pay roll for week ending June 24 was as follows:


A voucher was issued and the workmen were paid.

Shop supplies purchased from Joseph Cooper \& Company amounted to $\$ 381.25$.

A voucher was issued and placed in the unpaid file.
The office pay roll for the last half of the month was as follows:


A voucher was prepared and employes were paid.
The cashier presented the following statement of disbursements from petty cash to be vouchered and paid:

```
Shop Supplies . . . . . . . . . . . . . . . . . . . . . . . . . $ }2.8
Heat, Light, and Power . . . . . . . . . . . . . . . . . . . . . 5.75
Traveling Expense . . . . . . . . . . . . . . . . . . . . . . . . }57.5
Advertising . . . . . . . . . . . . . . . . . . . . . . . . . . }13.0
Miscellaneous Selling Expenses . . . . . . . . . . . . . . . 15.25
```

$\$ 94.30$
The factory pay roll from June 26 to June 30, 5 days, has accrued and will not be paid until July 3. The distribution was as follows:


1. You are to record the above transactions on the voucher register and check register forms provided with this assignment.
2. After entries have been made, foot voucher register and check register, post vouchers payable to the Vouchers Payable Account, list the unpaid vouchers, and reconcile with the Vouchers Payable Account.

Submit all your work for review and grading.

# Higher Accountancy - 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 23 <br> FACTORY ACCOUNTING

HERE are hundreds of thousands of men who are
termed "bright" and clever-men who are good workers, but who never seem to progress. They have failed to recognize the fact that permanent success lies in specialization-in selecting one branch of business, learning it thoroly, and sticking to it.

IRving R. Allen,
Vice President and General Manager. H. W. Kastor \& Sons Advertising Co.

# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## FACTORY ACCOUNTING

## MANUFACTURING STATEMENT-COST OF PRODUCTION

Most businesses that operate for profit are engaged in buying and selling some product, either as traders or as manufacturers. Trading concerns, such as we have been considering in preceding assignments, buy and sell merchandise; that is, they buy it, and sell it again in the same form.

Manufacturing businesses also buy and sell for profit, but the goods they sell are not in the same form as those they buy. The manufacturer buys material, and then by adding labor and using machinery he changes this material into a different form, which he sells to the wholesaler or directly to the retailer. It is this additional process of converting material that distinguishes the manufacturing from the trading business.

For example, a retail dealer in men's clothing buys and sells the same garments. The manufacturer of the garments, however, buys cloth and then employs labor and uses machines in converting this cloth into the finished garments. Likewise the manufacturer of the cloth buys the cotton and wool and converts this into the finished product, cloth. Thus you see that what is a finished product to the cloth manufacturer is raw material to the garment manufacturer.

During the last twenty years manufacturing has developed tremendously fast. From 1914 to 1919 the number of plants increased 5.2 per cent over the preceding five years. According to the last United States census there are now 290,105 manufacturing plants in operation in the United States, with a production valued at over $\$ 62,000,000,000.00$. In the state of New York alone there are 49,330 plants with a production valued at $\$ 8,800,000,000.00$.

This increase in manufacturing has naturally called for additional accounting control. As a result, cost accounting has developed into an exact science, with the ultimate purpose of helping the manufacturer solve his problems of production. The subject of cost accounting will, however, be taken up in a later section of the course. In this Assignment we will present, by way of introduction to the subject, some of the simpler problems connected with manufacturing accounts, such as the various costs of production and the manufacturing statement.

How Manufacturing Accounts Differ from Trading Accounts. The general accounting methods of a manufacturing concern are to a large extent the same as those employed by a trading business. In the manufacturing enterprise, however, we have the special problem of determining the cost of the goods manufactured, which later are sold at a profit. It might be well to emphasize at this point that there can be no profit realized until the goods are actually sold and converted into cash or collectible claims against customers.

In a trading business it is only necessary to ascertain the cost of the goods bought and sold and to arrive at the amount realized on those sold to find the gross profit. By charging against the gross profit the general expenses of the business, the net profit is ascertained. The operations of a trading concern are, therefore, summarized in two accounts:

1. The Trading Account.
2. The Profit and Loss Account.

In a manufacturing enterprise, it is necessary, in addition, to determine the cost of production, and this is done by using an additional account, called the Manufacturing Account. The manufacturer therefore divides his operating accounts on the general ledger into three heads:

1. The Manufacturing Account-pertaining to the manufacture of goods.
2. The Trading Account-pertaining to their sale.
3. The Profit and Loss Account-summarizing all the expenses incurred in producing and marketing the goods, including the general expenses of the business.

Elements of Cost of Production. Since the Manufacturing Account is intended to give the cost of production, it first of all will be well to become familiar with the three elements that make up the cost of production, namely:

1. Direct Material.
2. Direct Labor.
3. Factory Expense.

These three groups should include every expenditure essential to manufacturing the product into its finished stage ready for sale.

Before taking up the accounts generally kept to bring these elements together in a "Cost of Goods Manufactured" or Manufacturing Account, let us analyze briefly each of these three elements.

## DIRECT MATERIAL

The first cost in the manufacture of any product is the material from which it is made. This is called direct material, and of course should consist of, not only the amount paid for the material itself, but also the cost of transportation-freight, cartage, etc.-necessary in getting it to the factory.

There are three classes of direct material, namely, raw material, purchased parts, and manufacturing supplies. It is generally the best practice to keep a separate ledger account for each class of material.

Raw material is anything which undergoes some process in the factory before becoming a part of the product; for example, woolen yarn in a textile mill and lumber in a furniture factory.

Purchased parts is direct material which undergoes no change, but becomes a part of the product merely by attachment or assembly. In an automobile factory, for example, such items as the bodies, steering gears, speedometers, etc., can often be purchased more cheaply from another company than they can be produced in the factory itself. In some cases
these parts must be purchased from another concern because they are made by some patented process. It is evident, as noted before, that the finished product of one factory may become the material for another factory. In fact, some manufacturing is largely a matter of assembling, very little actual processing of material being performed.

Manufacturing supplies are direct material, which include such items as nails, glue, etc., in a furniture factory, and buttons, thread, etc., in a clothing factory, that are essential material in manufacture. These supplies should not be confused with general mill supplies, like oil, grease, brooms, tissue, etc., or supplies needed for repairs, all of which are factory expense items and not direct material.

The test of what is direct material might be stated thus: All material which goes in substance into the product manufactured is direct material. All material that is consumed in the operation of the factory is indirect material.

## DIRECT LABOR

The second important element of the cost of a manufactured product is the labor which is employed in making it. In most factories labor is of two kinds:

1. Direct Labor.
2. Indirect Labor.

Direct labor is that which is employed directly in processing the raw materials or in assembling the parts into the finished product. For instance, in the manufacture of furniture the labor of cutting, planing, and finishing the lumber is direct labor. If a workman receives $\$ 1.00$ an hour and spends 24 hours in making a desk, the labor cost is $\$ 24.00$.

The test for direct labor is similar to the test for direct material, namely, whether the work is used in the actual production of the article or not. If it is so used, the labor cost is said to be a direct cost of the article produced.

On the other hand, there is a lot of labor employed in every factory, like janitor's labor to keep the factory clean, that of repair men to make repairs, etc., which is called indirect. Such labor cannot be charged directly to any product or article being manufactured, but must be distributed over the entire output for a period. It is therefore considered a part of the factory expense, explained in the next paragraph.

## FACTORY EXPENSE

The third element of cost of production includes all expenses arising from the operation of the factory which cannot, like material and direct labor, be definitely traced to the product. Some of the most important expenses are:

> Superintendence. Indirect Labor. Light and Heat. Power. Water.

[^8]These expenses are incurred on account of the process of manufacture and not for selling or general administration; hence they are a true part of the cost of production.

What is Meant by Prime Cost. The three elements of cost-namely, direct material, direct labor, and factory expense-naturally fall into two groups. The direct costs, direct material, and direct labor make up one group, which is called prime cost, and factory expense constitutes a second group, generally called indirect cost or overhead.

Accordingly, accountants make use of the two following equations in determining the cost of production:

> 1. Direct Material + Direct Labor $=$ Prime Cost.
> 2. Prime Cost + Factory Expense $=$ Total Factory Cost.

For example, in 1921 the Cross Manufacturing Company used raw material to the amount of $\$ 208,100.00$, had a direct-labor pay roll of $\$ 333,000.00$, and factory expense amounting to $\$ 186,900.00$. The total cost of production is this case can be graphically shown, as in Figure 1.


Chart Showing Elements of Factory Cost
Figure 1. You will notice how the two direct costs, material and labor, when added together make up prime cost, and also how factory expense plus prime cost equals factory cost.

## PROBLEM DEMONSTRATION

In order that we may know how to determine the cost of production, and how to set up the financial statements for a manufacturing business, we will take the following trial balance of the Beaver Manufacturing Company:

## beaver manufacturing company

Trial Balance, December 31, 1921


## Trial Balance Before Closina

Figure 2. This trial balance shows the accounts on the books of the Beaver Manufacturing Company. From this Trial Balance statements are prepared, as shown in Figures 6 and 7

Assignment 23, Page 5

The physical inventories taken at December 31, 1920, show the following totals:

$$
\begin{aligned}
& \text { Raw Material and Supplies......................................................................................................................................... } \\
& \text { Goods in Process....... }
\end{aligned}
$$

The nominal accounts of this trial balance will be closed into three summary accounts, as follows:

1. Manufacturing Account-For the purpose of determining the cost of goods manufactured during the period.
2. Trading Account-For the purpose of determining the gross profit from sales.
3. Profit and Loss Account-For the purpose of determining the net profit from operations.
Entries to Be Made in the Manufacturing Account. The Manufacturing Account is set up at the time of closing the books as a summary account for all the costs and expenses of manufacture for the period. The inventories for both raw materials and goods in process on January, 1921, will be charged to this summary account. The cost of the raw material purchased during the period, including the freight and cartage to bring it into the factory, the direct labor, and all the factory expenses necessary in maintaining and operating the factory, will likewise be charged to this account.

Manufacturing Account


The Manufacturing Account
Figure 3. Every debit in this account is offset by a credit in another account. For example, when we charge the Manufacturing Account with $\$ 28,762.20$ Raw Materials, we also credit the Raw-Materials Inventory Account with the same amount, thus closing that account, etc. Every credit in the Manufacturing Account is likewise offset by a corresponding debit in another account. Thus you see what we mean when we say the Manufacturing Account is a summary account.

This gives us the total expenditures for manufacturing. In order to determine the cost of production, it is necessary to credit the Manufacturing Account with the inventories of raw materials and goods in process on December 31, 1921. The balance of the Manufacturing Account, as shown below, will now be the cost of production, amounting to $\$ 202,338.85$.

The Trading Account. The Trading Account is charged with the finished goods on hand at the beginning of the year. The cost of goods manufactured ( $\$ 202,338.85$ ) is then carried from the Manufacturing Account into the Trading Account as a debit. The following journal entry should be made to record this transfer on the books, as one of the closing entries.

Dsc. 31, 1921 Trading Account. . . . . . . . . . . . . . . . . $\$ 202,338,85$
Manufacturing Account.
$\$ 202,338.85$
To close the cost of goods manufactured during the period into the Trading Account.

The Trading Account is then credited with the inventory of finished goods on hand at the close of the period, $\$ 33,500.00$.

Return Sales and Allowances are closed into the Sales Account and the net sales is credited to the Trading Account, thus:

Dec. 31, 1921 Sales.
$\$ 7,132.50$
Return Sales and Allowances. .. ..... , \$7,132.50
To charge the Sales Account with the return sales and allowances.

After these entries have been made the Trading Account will have a balance of $\$ 83,765.20$, as shown in Figure 4.

Trading Account


Trading Account After the Manufacturing Account Is Closed Into It
Figure 4. Note especially how the cost of production is carried from the Manufacturing Account into the Trading Account

The Profit and Loss Account. The gross profit from sales as shown in the Trading Account is then transferred to the Profit and Loss Account by the following entry:

To transfer gross profit from Trading to Profit and
Loss Account.
When all the expense accounts have been closed into the Profit and Loss Account, it will appear as in Figure 5.

Profit and Loss Account


The Profit and Loss Account
Figure 5. This account, as you note, is a summary of all costs and expenses and of all incomes for the period.

The final balance of the Profit and Loss Account, amounting to $\$ 44,027.25$, is the net profit for the year. This amount is finally transferred by journal entry to the credit of the Capital Account.

The Profit and Loss Account is sometimes divided into two sections. The expenses and income from operations would then be put into the first section, which results in a balance called net profit from operations.

This balance is then transferred to the second section, the Income Account. The financial items, like interest and discounts as well as any other nonoperating expense or income, are summarized in this account, which results in the net profit or net income for the year. This procedure for the ledger is in harmony with the arrangement on the Statement of Profit and Loss, and for that reason is recommended by some accountants. For ledger purposes, however, it appears to be unnecessary.

These three accounts, Manufacturing, Trading, and Profit and Loss, as shown above, are used merely as summary accounts in the closing process. There is no need, therefore, for opening up these accounts on
the ledger except at the time of closing the books. They serve only as clearing accounts, in order to bring the net profit for the period into the Capital Account. At the beginning of the next period new nominal accounts are opened.

Those in charge of the business, however, desire information on manufacturing costs, income from sales, and general expenses. To meet this need, the accountant is expected to prepare two operating statements, showing all the costs and incomes properly classified.

1. The Manufacturing Statement.
2. The Profit and Loss Statement.

The Manufacturing Statement. A manufacturing statement should show all the costs of raw material, direct labor, and all the manufacturing expenses. In other words, it is a reproduction of the Manufacturing Account, only in a different form. For example, the manufacturing statement of the Beaver Manufacturing Company will appear thus:

| THE BEAVER MANUFACTURING COMPANY |
| ---: | ---: | ---: | ---: | ---: |
| Manufacturing Statement |
| For the Year Ended |

The Manufacturing Statement
Figure 6. You will notice that the same figures are used in the statement as were used in the Manufacturing Account. The statement is in report form, so as to show in a logical way the various elements of manufacturing cost. The cost of production is taken over into the Profit and Loss Statement, in Figure 7.

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| THE BEAVER MANUFACTURING COMPANY <br> Profit and Loss Statement <br> Year Ending December 31, 1921 |  |  |
| :---: | :---: | :---: |
| Gross Sales Deduct: Return Sales and Allowances | $\begin{array}{r} \$ 270,736.55 \\ 7,132.50 \end{array}$ |  |
| Net Sales |  | \$263,604.05 |
| Cost of Goods Sold: <br> Finished Goods Inventory, Jan. 1, 1921. <br> Cost of Goods Manufactured. | $\begin{array}{r} \$ 11,000.00 \\ 202,338.85 \end{array}$ |  |
| Deduct Finished Goods Inventory, Dec. 31, 1921. | $\begin{array}{r} \$ 213,338.85 \\ 33,500.00 \end{array}$ | 179,838.85 |
| Gross Profit on Sales . . . . . . . . . . . . . . . . . . Deduct: |  | \$ $83,765.20$ |
| Selling Expenses: |  |  |
| Salesmen's Salaries . . . | \$ 7,740.00 |  |
| Salesmen's Traveling Expenses | 4,675.00 |  |
| Advertising . . | $8,283.20$ |  |
| Freight on Sales. | $\begin{aligned} & 2,811.25 \\ & 4 \\ & 428 \end{aligned}$ | 27,737.45 |
| Net Selling Profit. |  | \$ 56,027.75 |
| Deduct: |  |  |
| General Administrative Expenses: |  |  |
| General Office Salaries . | \$ 4,888.00 |  |
| Office Supplies ${ }_{\text {Stationery }}$ and Printing | 1,372.00 |  |
| Stationery and Printing | 400.00 |  |
| Telephone and Telegraph . . | 75.00 |  |
| Miscellaneous Office Expense. | 731.00 |  |
| Depreciation. . . . . . | 600.00 |  |
| Insurance. | 112.00 |  |
| Bad Debts. | 891.50 | 9,069.50 |
| Net Profit from Operations. |  | \$ 46,958.25 |
| Add: |  |  |
| Nonoperating Income: |  |  |
| Discount on Purchases <br> Interest earned | $\begin{array}{ll} \$ 1,835.00 \\ & 400.00 \end{array}$ | 2,235.00 |
|  |  | \$49,193.25 |
| Deduct: |  |  |
| Nonoperating Expenses: |  |  |
| Interest Expense. Discount on Sales. | $\begin{array}{r} 600.00 \\ 4,566.00 \end{array}$ | 5,166.00 |
| Net Profit. |  | \$ 44,027.25 |

The Profit and Loss Statement
Figure 7. This Profit and Loss Statement is practically the same as that used for trading concerns. The only difference is in the Cost of Goods Sold Section. In place of the purchases, we have the cost of production, which amount is taken over from the Manufacturing Statement.

Now we shall set up the Profit and Loss Statement, which will contain the same items as appeared in the Profit and Loss and Trading Accounts, only in a different arrangement. The main purpose of the statement is to present the operations of the business so as to show clearly the various elements contributing to the final profit.

Notice that the accountant arranges these figures so that the operating transactions may be intelligently interpreted by those who control the business.

You are now familiar with the form and purpose of the Manufacturing Statement. It is primarily a means of ascertaining the cost of production. As you have noted in both the account and the statement above, in order to determine this amount it was necessary to take an inventory of the raw materials at the end of the period before we could determine the cost of raw materials used in production. If all the materials that were put in process during the year were manufactured into the finished product in the same period, there would be no goods in process at the end of the year. In any manufacturing enterprise, however, there are usually some materials in process of manufacture at the close of the year. Some labor has been performed upon them and a part of the overhead expenses also belongs to them. The cost of goods in process is therefore made up of material, labor, and overhead.

Need for Perpetual Inventory Records. Most manufacturers, however, cannot wait until the end of the year, when an inventory is taken, to find out the cost of manufacturing their product. They want to know the cost of doing business monthly. This means that some record must be maintained which will show the amount of raw materials, work in process, and finished goods at the end of each month.

We know that if we add the inventory of raw materials at the beginning of the month to the purchases during the month, and deduct from this sum the cost of the materials used in manufacturing, the result will be the value of raw materials on hand at the close of the month.

To have such a record for the raw material, we must put the materials in a storeroom and keep a Stores Ledger Account with each size and kind of material, showing quantities and values received and the quantities and values delivered out of the storeroom to the factory. QUANTITY RECEIVED MINUS QUANTITY DELIVERED EQUALS QUANTITY ON HAND at any moment of time. In this way we have what is called a PERPETUAL INVENTORY of raw materials.

Your next lesson will show you how this perpetual inventory is maintained.

## MAIN POINTS IN THIS ASSIGNMENT

In this Assignment you have begun the study of one of the most important and interesting phases of accounting, namely, Factory Accounting. Thruout the Assignment we have illustrated and explained the following principles:

First. Factory Accounting is like accounting for trading concerns, except that you have the added problem of finding the cost of production.
Second. The cost of production is made up of three main costs:

1. Direct Material.
2. Direct Labor.
3. Factory Expenses.

Third. Two formulas are used by accountants in determining the cost of production:

1. Direct Material+Direct Labor=Prime Cost.
2. Prime cost+Factory Expenses=Cost of Production.

Fourth. When the ledger is closed, the three elements of the cost of production are summarized in the Manufacturing Account. The balance of this account, representing the cost of production, is carried to the Trading Account as a debit.
Fifth. The various costs of production are also classified and summarized in the Manufacturing Statement in such a way that those in charge of the business can make an intelligent analysis.
Sixth. The final amount determined as the cost of production in the Manufacturing Statement is taken over in the Profit and Loss Statement, Cost of Goods Sold section, where the amount of purchases usually appears.
Seventh. In the illustrative problem of this assignment it is assumed that physical inventories are taken annually for raw materials and supplies. In the next Assignment the perpetual inventory plan will be explained.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 23.

Send in solutions for the following problems, all of which are taken from the Drexel Motor Company.

The accountant of the Drexel Motor Company prepared a trial balance from the general ledger at December 31, 1921 as follows:

Trial Balance, December 31, 1921

|  | DEBITS | CREDITS |  |
| :---: | :---: | :---: | :---: |
| Cash in bank | \$ 10,114 55 |  |  |
| Petty Cash | 15000 |  |  |
| Accounts Receivable. | 110,472 05 |  |  |
| Allowance for Bad and Doubtful Accounts. |  | \$ 3,51972 | 72 |
| Notes Receivable | 5,640 10 |  |  |
| Inventories at Jan. 1, 1921: |  |  |  |
| Raw Materials. . . . . . | 25,240 16 |  |  |
| Motors in Process. | 15,970 20 |  |  |
| Pinished Motors. | 42,49070 |  |  |
| Office Furniture and Fixtures. | 1,24000 |  |  |
| Allowance for Depreciation Office Furniture and Fixtures . |  | 620 | 00 |
| Factory Furniture and Fixtures . . . . . . . . . . | 8,100 00 |  |  |
| Allowance for Depreciation Factory Furniture and Fixtures. |  | 3,190 | 20 |
| Tools. . | 5,140 17 |  |  |
| Patterns . | 7,500 00 |  |  |
| Allowance for Depreciation of Patterns |  | 5,405 | 14 |
| Machinery. | 72,520 70 |  |  |
| Allowance for Depreciation of Machinery. |  | 21,490 | 16 |
| Buildings. | 125,000,00 |  |  |
| Allowance for Depreciation of Buildings. |  | 50,000 0 | 00 |
| Land. | 30,000 00 |  |  |
| Notes Payable. |  | 10,000 | 00 |
| Accounts Payable |  | 62,490 | 35 |
| Mortgage Payable |  | 15,000 | 00 |
| Capital Account. |  | 239,919 | 34 |
| Motor Sales. |  | 375,198 | 67 |
| Motor Sales Returns and Allowance. | 10,24080 |  |  |
| Raw Materials Purchases. | 165,460 18 |  |  |
| Raw Materials Pur. Returns and Allowances. |  | 9,840 | 60 |
| In-Freight and Drayage | 1,460 24 |  |  |
| Direct Labor . . . . | 65,918 60 |  |  |
| Indirect Labor | 20,372 40 |  |  |
| Manufacturing Supplies | 4,62085 |  |  |
| Machinery Repairs. . | 57500 |  |  |
| Light, Heat, and Power | 8,91718 |  |  |
| Insurance on Factory Materials. | 82000 |  |  |
| Insurance on Building and Equipment. | 1,89000 |  |  |
| Taxes. . . . | 2,850,00 |  |  |
| Miscellaneous Factory Expenses | 1,269 25 |  |  |
| Salesmen's Salaries. . . . . | 19,69075 |  |  |
| Salesmen's Commissions . | 4,61015 |  |  |
| Salesmen's Traveling Expenses. | 8,111 25 |  |  |
| Out-Freight and Shipping Expense | 59020 |  |  |
| Advertising. | 3,80000 |  |  |
| Miscellaneous Selling Expenses | 3,17530 |  |  |
| Office Salaries. | 12,21040 |  |  |
| Office Supplies. | 72020 |  |  |
| Miscellaneous Office Expenses. | 1,810,65 |  |  |
| Purchases Discounts. |  | 8,375 | 90 |
| Interest Earned. . |  | 282 | 00 |
| Sales Discounts. | 5,440,05 |  |  |
| Interest Expense | 1,20000 |  |  |
|  | \$805,332 08 | \$805,332 | 08 |

At December 31, 1921, physical inventories were taken. The cost values were as follows:

$$
\begin{aligned}
& \text { Raw Materials .................................................................................................................................................. } \\
& \text { Motors in Process....... }
\end{aligned}
$$

Before closing the books the accountant found it necessary to make entries for depreciation based upon the cost value as shown on the books as follows:

$$
\begin{aligned}
& \text { Office Furniture and Fixtures.................................. } 10 \% \\
& \text { Factory Furniture and Fixtures............................ } 10 \% \\
& \text { Buildings ..................................................................... 2\% } \\
& \text { Machinery .................................................................... } 10 \% \\
& \text { Patterns ......................................................................... } 20 \%
\end{aligned}
$$

Instead of depreciating tools, a physical inventory was taken and the tools on hand amounted to $\$ 4,800.25$. Hence the difference between the value on the books and the inventory value must be credited to Tools Account and charged to Tools Expense.

Five per cent of the light, heat, and power is to be charged to profit and loss as an administrative expense and the balance to manufacturing.

Depreciation of buildings is to be charged 80 per cent to manufacturing and 20 per cent to profit and loss.

Insurance on building and equipment is to be charged 85 per cent to manufacturing and 15 per cent to profit and loss.

Taxes are to be charged 85 per cent to manufacturing and 15 per cent to profit and loss.

An additional reserve of $\$ 500.00$ is to be provided for bad debts.

## PROBLEM 1

Assume that you are the accountant of the Drexel Motor Manufacturing Company. You are to prepare the journal entries to place the depreciation for the year 1921 on the books and then to apportion expenses, as indicated above, so that the Manufacturing Account will bear no more than its share of the burden.

## PROBLEM 2

You find that the following expenses are accrued at December 31, 1921. These expenses belong to the operations of the year 1921, but will be paid sometime in January.

Sales Commission ......................................................................................................................... 150.00
Interest ........
Prepare journal entries to put these accrued expenses on the books.

## PROBLEM 3

You also find that the following items have been included in expense accounts but that they must be set up as prepaid expenses because they have been paid and will be expenses in the year 1922.

> Manufacturing Supplies, Coal, Waste, Oil, etc......................................................... 300.00 Advertising .-......

Insurance on Factory Materials........................ 125.00
Prepare journal entries to record these deferred charges on the books.

## PROBLEM 4

After the entries are made for the above transactions the accountant proceeds to close the nominal accounts thru the Manufacturing, Trading, and Profit and Loss Accounts. These journal entries have been prepared for you to show you the method of closing, and to save your time in preparing the Manufacturing, Trading, and Profit and Loss Accounts.

In addition to those which you have prepared for Problem 1 to apportion light, heat, and power, depreciation of buildings, insurance on buildings, equipment, and taxes, the following journal entries are necessary to close the Manufacturing, Trading, and Profit and Loss Accounts.
Dec. 31, 1921, Manufacturing Account. . . . . . . . . . . . . . $\$ 41,210.36$Trading Account.$42,490.70$
Raw Material Inventory ..... $\$ 25,240.16$
Motors in Process Inventory ..... 15,970.20
Finished Motors Inventory ..... $42,490.70$
To close inventories of Jan. 1, 1921
Raw Materials Inventory ..... \$ 31,216.15
Motors in Process Inventory. ..... 18,793.80
Pinished Motors Inventory. ..... 31,470.95Manufacturing Account$\$ 50,009.95$Trading Account$31,470.95$
To place on the books the inventories of December 31, 1921
Raw Materials Purchase Returns and Allowances. . $\$ 9,840.60$ Raw Materials Purchases ..... $\$ \quad 9,840.60$
To close the purchase returns and allowances
into the purchase account.
Manufacturing Account ..... $\$ 155,619.58$
Raw Material Purchases$\$ 155,619.58$
To close net purchases into Manufacturing
Manufacturing Account. ..... \$104,688.33
Freight and Drayage ..... \$ 1,460.24
Direct Labor. ..... 65,918.60
Indirect Labor ..... 20,372.40
Manufacturing Supplies. ..... 4,495.85
Machinery Repairs ..... 575.00
Insurance on Factory Materials. ..... 695.00
Depreciation of Machinery ..... 7,252.07
Depreciation of Patterns. ..... 1,500.00
Depreciation of Purniture and Fixtures ..... 810.00
Tools Expense ..... 339.92
Miscellaneous Factory Expense ..... 1,269.25
To close into Manufacturing Account

```
Motor Sales. . . . . . . . . . . . . . . . . . . $ 10,240.80
    Motor Sales Returns and Allowances. . . . . . . $ 10,240.80
    To close return sales and allowances into Sales Account
Motor Sales. . . . . . . . . . . . . . . . . . . . $364,957.87
    Trading Account . . . . . . . . . . . . . . . . $364,957.87
To close net sales into Trading Account.
Profit and Loss Account. . . . . . . . . . . . . $ 62,152.35
    Salesmen's Salaries
    $ 19,690.75
    Salesmen's Commission
    4,029.55
    Salesmen's Traveling Expenses
    8,111.25
    Out-Freight and Shipping
        590.20
    Advertising
    3,500.00
    Miscellaneous Selling Expenses. . . . . . . . 3,175.30
    Office Salaries
    12,210.40
    Office Supplies
        720.20
    Miscellaneous Office Expenses . . . . . ... 1,810.65
    Depreciation of Office Furniture and Fixtures
        124.00
    Bad Debts Expense
    500.00
    Sales Discount. . . . . . . . . . . . . . . . . 5,440.05
    Interest Expense. . . . . . . . . . . . . . . . 1,350.00
                        To close into Profit and Loss Account.
Discount on Purchases. . . . . . . . . . . . . . . $ 8,375.90
Interest Earned
    282.00
    Profit and Loss Account
        $ 8,657.80
    To close into Profit and Loss.
```

You are to prepare the journal entries to show the transfer of
(a) Manufacturing Cost to Trading Account.
(b) Gross Profit from Trading to Profit and Loss Accounts.
(c) Net Profit from Profit and Loss Account to the proprietor's Capital Account.
Submit the Manufacturing, Trading, and Profit and Loss Accounts as they would appear on the general ledger after they are closed.

## PROBLEM 5

The proprietor of the Drexel Manufacturing Co. requests you as his accountant to prepare for him:

1. Manufacturing Statement.
2. Profit and Loss Statement.
3. Balance Sheet.

Submit all your work to the University for grading.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assignment 24 <br> FACTORY ACCOUNTING PERPETUAL INVENTORY

SUCCESSFUL operation of any business - manufacturing, wholesale, retail-requires exact information about every detail of the business. The information must be complete enough and detailed enough to give the executives who are responsible for the operation of the business exact knowledge of its every detail.

CHARLES R. STEVENSON
General Manager
National Veneer Products Company

# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## FACTORY ACCOUNTING

## PERPETUAL INVENTORY-USE OF COST SHEETS

The Beaver Manufacturing Company, referred to in the preceding assignment, had practically no accounting method of controlling and safeguarding its stores of raw material and stock of finished goods. When material was received, it was simply stored in the warehouse, and when the goods were finished, they were either sold or stored in the stock room. Purchases and sales were recorded, but no record was kept of materials taken from the storeroom.

As a result, there was no way of knowing how much was lost thru breakage or theft, and no record was made of such losses. The only check up the company had was the physical inventory which was taken at the end of the year. This, however, took considerable time, and usually made it necessary to close the plant for a week or two.

With material and goods passing continuously from one place in the factory to another, it was practically impossible to take an accurate inventory, unless the factory ceased operations.

The Beaver Manufacturing Company usually closed down from Christmas until after New Year's, to allow sufficient time for taking inventories.

On December 24, 1921, it happened that the company was crowded with orders. Most of these were supposed to be filled some time early in January. Under such conditions the factory should not have ceased operation. It did, however. The result was that when the factory opened again on January 1, overtime work was found necessary, which involved additional expense.

The company's accountant analyzed the situation and suggested the perpetual inventory plan as a remedy.

What is Meant by the Perpetual Inventory. The perpetual inventory plan consists of a continuous record of all material and supplies as they are received in the storeroom, of all material and supplies as they are taken out of the storeroom and put into process, and of all manufactured goods taken out of the factory and put in the finished-stock room. When goods are sold, a record is kept of all goods taken from the stock room. If a record is kept of everything that is received and everything that is issued, it is easy to determine the amount on hand.

This plan requires some kind of record for the three inventories. Usually the records are kept on cards in files, one set for raw materials, another for goods in process, and a third for finished stock. On these cards are recorded both the quantities and money values of inventories received, issued, and balance on hand. Sometimes only quantities are recorded, but it is better practice, wherever possible, to record both quantities and money values, especially when controlling accounts are used.

These inventory records will be explained and illustrated later in the assignment. First we shall consider some of the advantages of such a system.

The Advantages of the Perpetual Inventory. When the accountant suggested the plan for the Beaver Manufacturing Company, he had no difficulty in showing that the company was following an inadequate and expensive method by closing down for a week or more to take a physical inventory. What was needed was a record that would show currently the amount of material and finished goods on hand and do away with the periodic shutdowns.

He also made it clear that the perpetual inventory can be used in controlling the stores by making occasional test counts of materials on hand. When an accurate count is made of some kind of material, and it is found that less material is on hand than the amount shown on the perpetual inventory record, either the record is incorrect or it may be assumed that some of the material was lost either thru theft or breakage.

In case materials and stock are lost thru burglary or fire, adjustment with insurance companies can be made more easily and quickly if a perpetual inventory is kept.

A department store in the State of Kansas was robbed. The proprietor made a hurried inspection of his stock and estimated his loss at $\$ 400.00$. Fortunately, however, he had kept a perpetual inventory of merchandise. The insurance adjuster checked up the perpetual inventory records and found that $\$ 956.00$ worth of merchandise had been stolen instead of only $\$ 400.00$.

The insurance company finally settled on the basis of the perpetual inventory record. If the proprietor had not kept such a record, either he would have lost money, provided his estimate had been accepted by the insurance company, or it would have been necessary to take a complete physical inventory. This would of course have required considerable time and work, and settlement would have been delayed for some time.

Sometimes the perpetual inventory records show less than the physical inventory. In such a case, the difference can be located and the record corrected. In this way inventories can be more carefully safeguarded, and more accurately accounted for. One large factory in Detroit, Mich., reports that it recently made a test count of more than 74,000 items in the stock room and found that the perpetual inventory record was off by less than 1-3 of one per cent. This difference was located and the record was corrected.

The Importance of Perpetual Inventory in Factory Accounting. From the illustrations given above, it is evident that the perpetual inventory plan can be used effectively in both trading and manufacturing concerns. It is especially valuable, however, in factory accounting, because it provides an accurate control for the many kinds of material and supplies as they pass thru the various stages of the manufacturing process. First of all, it is essential to be familiar with these stages.

In any manufacturing plant, there are three distinct stages or steps thru which raw material must pass before it becomes a finished product.

> 1. The Raw-Material Stage.
> 2. The Goods-in-Process Stage.
> 3. The Finished-Goods Stage.

For each of these stages a controlling account is shown on page 19, kept in the general ledger:

> Raw Materials Account
> Goods-in-Process Account or Work-in-Process Account Finished-Goods Account.

Each of these accounts in the general ledger controls a subsidiary ledger. If the accounts in the subsidiary ledgers are maintained so that at any time, even before the end of the year, the inventory value of these three stages can be determined, it will be possible to ascertain the cost of goods manufactured without taking a physical inventory.

For example, the Raw-Materials Account is a controlling account which represents or controls the individual accounts with each kind of material purchased and recorded in the stores ledger. This account is debited, and Cash, Vouchers Payable, or Accounts Payable is credited with all goods received.

Dr. Raw Materials
Cr. Cash, Vouchers Payable, or Accounts Payable
The Raw-Materials Account is then credited with all materials put in process.

Goods in Process is an account which controls the individual accounts kept for the various jobs in the cost ledger. When material is put into process, and labor and manufacturing expenses are applied. the Goods-inProcess Account is debited thus:

```
Dr. Goods in Process
    Cr. Raw Materials
        Direct Labor
            Manufacturing Expense
```

The Finished-Goods Account in a similar manner controls the individual accounts kept with each class of stock in the finished-stock ledger. This account is debited for all goods taken out of the factory and put in the stock room ready for sale.

```
Dr. Finished Goods
    Cr. Goods in Process
```

When finished goods are taken out of the stock room for sale, the Fin-ished-Goods Account is credited and Cost-of-Goods-Sold Account is debited.

All three accounts, Raw Materials, Goods in Process, and Finished Goods, are asset accounts, that is, they represent values owned by the manufacturing concern. The debit balance in each account will show the inventory value for each asset.

We will now take up these three stages separately and explain how each account is tied up with the perpetual inventory record.

## STAGE 1

## Raw Materials in the Storeroom

To know the quantity and value of material on hand at any moment, two things are necessary.

1. A suitable room should be provided in which to store raw materials.
2. An accurate record should be kept for all material received and all material taken out and put in process in the factory.

The Storeroom-Duties of the Storeskeeper. The storeroom should be conveniently located near the factory departments that use the material. When the material is received, it is placed in the storeroom to remain there until it is needed in the factory.

Careless and inadequate supervision of the storeroom is the cause of serious leaks and losses. For this reason, the storeskeeper should be held responsible for the material received in the storeroom. He is also expected to account accurately for any withdrawals of material from the storeroom.

Materials in the storeroom represent an investment of cash, and for this reason should be just as carefully safeguarded as cash. As you know, a cashier is generally placed under bond for the faithful performance of his duties in the disposition of funds intrusted to his care. In like manner, the storeskeeper is the custodian of the company's store of materials and should be held accountable for its disposition.

Since the storeskeeper is responsible for all materials received and delivered, he should first of all provide a definite place in the storeroom for each kind of material.

For example, castings should be given a definite place, sheet metal another, bolts, screws, and small parts, each, another, etc. The bins and even the aisles may be given numbers. With the proper classification of material, the storeskeeper is able to work out a numeral or an alphabetical code for each class, size, or grade of material.

Since material is brought in and taken out of the storeroom continually, the storeskeeper maintains some kind of record for each kind of material. For example, he may use bin cards, on which a record is made when goods are put in the bin and when they are taken out. These bin cards are not a part of the accounting department, they merely serve as a means of keeping adequate amounts of material on hand and also facilitate the making of a test in connection with a physical inventory.

The Stores Ledger-Duties of the Stores Ledger Clerk. Even tho the bin cards provide a record of material, they do not furnish money values of material. They merely record quantities. Both quantities and money values of material are therefore recorded in a separate record called the "stores ledger." This ledger contains an account for each class of material.

Usually the stores ledger is kept in the cost department or in the general accounting department. In some of the smaller concerns, the stores
ledger is kept right in the storeroom and the storeskeeper is in charge. This is not desirable, however, since the stores ledger is a part of the accounting work. It is better, therefore, to keep the ledger under direct supervision and in connection with the cost department.

The person in charge of this ledger is called the stores ledger clerk. In making his entries, he uses the approved invoices for all materials received, and the material requisitions for materials withdrawn.

First of all, we shall explain, by means of an illustration, how a stores ledger is set up and how such a ledger operates as a part of a perpetual inventory system.

Stores Ledger Illustrated. The Beaver Manufacturing Company, refered to in Assignment 23, decided to introduce the perpetual inventory system on January 1, 1922. On that date, it had on hand raw materials amounting to $\$ 20,060.50$.

The inventory sheets on which the material was listed at the time of taking this inventory showed four classes of material, as tabulated in Figure 1.

|  | Quantity | Prices | Amount |
| :---: | :---: | :---: | :---: |
| Commodity | 500 | $\$ 8.5000$ | $\$ 4,250.00$ |
| A | 1,200 | 5.2500 | $6,300.00$ |
| B | 1,300 | 4.0000 | $5,200.00$ |
| D | 1,000 | 4.3105 | $4,310.05$ |
|  |  |  | $\$ 20,060.50$ |

Inventories of Raw Material
Figure 1.-This table shows a list of raw material on hand January 1, 1922.
Accordingly, a Stores Ledger Account was provided for each of these classes of raw material, and the quantity, price, and value on hand was entered in the Stores Ledger Account on January 1, 1922, in the "received" column. The purchases, during January, of Commodity A are also shown in the Stores Ledger Account, illustrated in Figure 2.

The inventory for Commodity A, as you will observe, is recorded in the "received" columns and also in the "balance on hand" columns.

You will notice that the difference between the quantities and values received and the quantities and values issued represents the quantity and value on hand for each commodity.

The balances of the Stores Ledger Accounts for Commodities A, B, C, and D , will equal the amount on the debit side of the Raw-Materials Account in the general ledger; namely, $\$ 20,060.50$. The Raw-Materials Account can therefore be said to control the four accounts in the subsidiary stores ledger, as illustrated in Figure 3.

After setting up the Stores Ledger Accounts, the next step consists in recording new materials as they are received, upon order of the purchasing department.


Stores Ledger Account
Figure 2.-This Stores Ledger Account has three divisions: The "Received" division is somewhat like the receipts side of a cash book, only instead of recording cash, we are recording values of material; the "Issued" division may be compared to the disbursements side of a cash book; the "Balance on Hand" division compares with the cash balance. Commodities B, C, and D are each given an account in the stores ledger similar to the one shown for Commodity A. In some Stores Accounts, another section is added at the extreme left for goods ordered, as illustrated in Assignment 14.
The Purchase Requisition and Purchase Order. When the stores clerk finds that certain kinds of material are running below a certain minimum, he sends a purchase requisition for a new or repeat order to the purchasing department, or to the buyer in case no department is maintained.


Figure 3.-Chart showing Agreement of Controlling Account with Subsidiary Ledger.
The purchasing agent, who is usually the head of the purchasing department, then issues a purchase order, which specifies the quality, quantity, price, time of delivery, and point of destination, also the terms, and in some cases the transportation charges. At this point. refer to Assignment 8 , where the purchase routine was fully explained.

Entries in the Raw-Materials Account for Materials Received. When the material arrives, the receiving clerk, or sometimes the storeskeeper
inspects and counts the goods. He makes out a receiving report, a copy of which goes to the purchasing department. In the meantime, the purchasing department has received the invoice for the material and has compared it with the purchase order. When the purchasing department receives the receiving report, it checks the invoice with this report. If any changes are necessary on account of underweight or short measure, and so forth, the purchasing department indicates these changes, corrects, and approves the invoice. The approved invoice is now sent to the general ledger bookkeeper.

The bookkeeper uses this approved invoice as the basis for his entries. If he has a purchase book, he enters the amount in the purchase book; if he has a voucher system, he enters the amount in the voucher register (assuming that a voucher is properly made out). In some cases he holds it to be vouchered with the invoices at the end of the month. If the voucher system is used, he will make a debit entry in the Raw-Materials Account column, and a credit entry in the Vouchers Payable Account column.

He follows the same procedure for each invoice as it comes from the purchasing department. Then at the end of the period, when the voucher register is posted, the column for raw materials will contain all purchases of raw material for the month. The column is then added and the total is posted as a debit to the Raw-Materials Account. The corresponding credit will be in the total credited to the Vouchers Payable Account.

These entries will affect the general ledger in the same way as if each purchase of material had been debited to the Raw-Materials Account, separately, and credited to the account of the creditor concerned, as shown by the following journal entry.

```
Dr. Raw Materials
    Cr. Cash, Vouchers Payable, or Accounts Payable
```

How Materials Received Are Recorded in the Stores Ledger. After making the entries in the general ledger, the general ledger bookkeeper

| Date <br> Received | From Whom Purchased | On Purchase Order No. | Quantity | $\begin{gathered} \text { Com- } \\ \text { MODITY } \end{gathered}$ | Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 10 | Davis Mfg. Co. | 10 | 100 | A | \$8.25 |
| Jan. 10 | Brown \& Smith | 11 | 200 | B | 5.25 |
| Jan. 15 | Davis Mfg. Co. | 21 | 150 | A | 8.50 |
| Jan. 15 | Collins Steel Co. | 22 | 250 | C | 4.00 |
| Jan. 24 | H. W. Jackson \& Co. | 28 | 200 | C | 5.00 |
| Jan. 24 | Hoover Mfg. Co. . | 29 | 325 | , | 4.00 |
| Jan. 28 | Davis Mfg. Co. | 31 | 50 | A | 8.00 |
| Jan. 28 | Brown \& Smith | 30 | 300 | D | 5.00 |
| Jan. 28 | Hoover Mfg. Co. | 32 | 100 | D | 4.35 |

List of Raw Materials Purchased
Figure 4.-Note how the three purchases and the receipt of Commodity $A$ are recorded in the Stores Ledger Account of Figure 2.
sends the approved invoices to the stores ledger clerk. The stores ledger clerk now uses these invoices as the basis for his entries in the Stores Ledger Accounts. For example, when the approved invoice for Commodity A is received, the stores ledger clerk will record in the "received" section of the Stores Ledger Account for Commodity A, the date on which the material was received, the purchase order number, the quantity, the unit price, and the amount.

This is the method that was used by the stores ledger clerk of the Beaver Manufacturing Company in recording the raw material received during the month of January, as listed in Figure 4.

## STAGE 2

## Goods in Process

Now take the second stage. As soon as materials are removed from the storeroom and put in process in the factory, they are spoken of as "goods in process." This process of manufacture involves the three elements, described in Assignment 23, materials, labor, and manufacturing expense.

These elements are recorded in the detail records of the cost department, summaries are made, and totals are entered in the Goods-in-Process Account, in the general ledger. This account controls the various accounts in the cost ledger.

Purpose of Material Requisition. The issuance of materia! is a matter of importance. No material should ever be given out by the storeskeeper unless a requisition has been made out for it and signed by the person authorized to do so.

The material requisition operates like a bank check altho unlike it in appearance. Cash is deposited in a bank. Cash in the form of materials is deposited in a storeroom. Both represent values. When cash is drawn out of the bank, a check is issued ordering the bank to pay the bearer or order a certain sum of money. The material requisition has much the same effect. It is issued in the factory, ordering the storeskeeper to deliver to a certain department a stated quantity of a specific material to be used for a definite job or process.

Material requisition forms vary in size, shape, and rulings, depending upon the information required. The form given in Figure 5 is typical of information generally shown on the material requisition.

These requisitions are important because they are the basis for entries in the accounting records; as explained in the next paragraph.

Entries Made From Material Requisitions. Material requisitions are used in making entries on the bin cards of the storeroom, in the stores ledger, the production orders of the cost department, and in the general accounting department. To understand how this is done, trace the various steps thru which the requisition passes, from the time it is issued until it reaches the general accounting records.

1. In the Factory. The requisition is filled out in duplicate by the foreman who needs the material. The original requisition is sent to the storeroom and the duplicate is retained as a follow-up, in case the material is not delivered.
2. In the Storeroom. When the storeskeeper delivers the materials called for by the requistion, he records the date, requisition number, and quantity on his bin card. He then sends the requisition to the cost accounting department.
3. In the Factory. When the material is received by the foreman in the factory, he checks it with his duplicate copy of the requisition, which is then forwarded to the cost department.
4. In the Cost Department. Both the original and duplicate of the requisition are now in the hands of the cost department. Here the two copies are checked against each other and verified. Each requisition is charged to the proper production order on the cost sheet, as explained later. Usually the stores ledger is kept in the cost department. The stores ledger clerk will enter each material requisition in the "issued" section of the Stores Ledger Account, record-


The Material Requisition
Figure 5.-The foreman of Assembling Department 5, orders the storeskeeper to deliver to him 200 articles of Commodity A. Note that the requisition is properly receipted when the goods are delivered. The stores ledger clerk records the delivery of the material in the Stores Ledger Account, as shown in Figure 2.
ing the date, material requisition number, quantity, unit price, and total amount. At the end of the week or month a summary is made of all requisitions for the period. This total represents all material put into process.
5. In the General Accounting Department. The cost department then sends this total summary to the general accounting department, where the following journal entry is made in the controlling accounts:

Dr. Goods in Process.
Cr. Raw Materials
After this entry has been posted, the Raw-Materials Account balance will give the inventory value of materials on hand. This amount ; should agree with the sum of all debit balances in the stores ledger.

Leaving the charges to cost accounts to be discussed later, we may now consider the stores accounts.

The factory departments of the Beaver Manufacturing Company requisitioned materials from stores during the month of January, 1922, to be charged to production orders, as listed in Figure 6.

| Date | Req. No. | To Be Used on <br> Prodection Order No. | Quantity | Commodity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 3 | 1 | 10 | 200 | A | \$ 1,700.00 |
| " 5 | 2 | 12 | 200 | B | 1,050.00 |
| " 6 | 3 | 10 | 400 | C | 1,600.00 |
| " 12 | 4 | 10 | 280 | B | 1,470.00 |
| " 14 | 5 | 12 | 250 | A | 2,125.00 |
| " 16 | 6 | 10 | 500 | D | 2,155.25 |
| " 18 | 7 | 10 | 300 | C | 1,200'.00 |
| " 21 | 8 | 11 | 220 | B | 1,155.00 |
| " 24 | 9 | 11 | 50 | A | + 425.00 |
| " 26 | 10 | 10 | 300 | B | 1,575.00 |
| " 26 | 11 | 11 |  | D | 2,155.25 |
| " 28 | 12 | 11 | 100 | A | 825.00 |
| " 30 | 13 | 13 | 50 | A | 425.00 |
|  |  |  |  | TOTAL | \$17,860.50 |

List of Material Requisitioned
Figure 6.-Requisition No. 1 was illustrated in the material requisition form, Figure 5, page 9.. Trace the postings from this requisition to the Stores Ledger Account for Commodity A in Figure 2, and note that this account is credited in the "Issued" columns with the quantities and values of material delivered out of the storeroom to the factory, as shown by the material requisition. In like manner, all other Stores Accounts are credited with material issued.
The Stores Ledger Accounts-A Perpetual Inventory of Materials. If a proper record is maintained of the receipts and issues of each class of material, you can readily see that a perpetual inventory is obtained because the stores ledger clerk can determine from his ledger every day, week, or month just how much of any class of material is on hand and the value
of it. For example, for Commodity A you will observe there were on hand:

$$
\begin{aligned}
& 300 \text { on January } 3 \\
& 300 \text { on January } 16 \\
& 250 \text { on January } 24 \\
& 200 \text { on January } 28 \\
& 150 \text { on January } 31
\end{aligned}
$$

Altho the value is usually not ascertained until the end of the month, it could be ascertained at any time by subtracting the total amount of issues from the total amount of receipts.

At the end of the month, it is desirable to balance the Stores Ledger Accounts with the balance in the Raw Material Controlling Account in the general ledger. By taking off a statement of balances of the stores ledger, we find that the aggregate balances of the Stores Accounts will agree with the debit balance in the Raw-Material Controlling Account.

Purpose of the Cost Ledger. Just as the Stores Ledger Accounts furnish a perpetual inventory record of materials, controlled by the Raw Material Account, so the cost ledger, with its numerous accounts for production orders, provides a perpetual inventory of goods in process, controlled by the Goods in Process Account in the general ledger.

Cost Sheet for Each Production Order. A cost sheet is opened up in the cost department for each production order issued. This order is issued by the manager or some other administrative official, instructing the factory to make a certain quantity of a given commodity. Such orders may be issued to fill a particular sales order, or they may call for a certain quantity of a particular commodity to be made and sent finished to the stock room. When the production order is issued, the factory departments that are to do the work will receive a copy. A copy of the production order also goes to the cost accountant who immediately opens up a cost sheet or a Cost Account in his cost ledger with that production order number.

What Is Entered on the Cost Sheet. All material and labor expended on the job is charged on the cost sheet for each production order. The cost sheet illustrated in Figure 7 will show you how the transactions were recorded for Production Order No. 10.

Material in Process Recorded on the Cost Sheet. It has already been emphasized that when a Stores Account is credited with material taken out of the storeroom, some cost account must be charged in the cost department.

The cost accountant of the Beaver Manufacturing Company recorded these material charges on loose-leaf sheets in the cost ledger, as illustrated in Figure 7.

Direct Labor in Process Recorded on the Cost Sheet. After material is put into process of manufacture, labor is expended on it. It is necessary,

| Cost of | $\frac{\text { Commodity X }}{\text { For }} \frac{\text { Finished Storeroom }}{\text { Jan. 3, } 1922}$ |
| ---: | :--- |

## Quantity on Order 1,200

Date Jan. 3, 1922

| MATERIAL USED |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Req. <br> No. | Material A |  |  | Material B |  |  | Material C |  |  | Material D |  |  |
|  |  | Quan. | Cost |  | Quan. | Cost |  | Quan. | Cost |  | Quan. | Cost |  |
| 1/3/22 | 1 | 200 | 1,700 | 00 |  |  |  |  |  |  |  |  |  |
| 1/6/22 | 3 |  |  |  |  |  |  | 400 | 1,600 | 00 |  |  |  |
| 1/12/22 | 4 |  |  |  | 280 | 1,470 | 00 |  |  |  |  |  |  |
| 1/15/22 | 6 |  |  |  |  |  |  |  |  |  | 500 | 2,155 | 25 |
| 1/18/22 | 7 |  |  |  |  |  |  | 300 | 1;200 | 00 |  |  |  |
| 1/26/22 | 10 |  |  |  | 300 | 1,575 | 00 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  | 200 | 1,700 | 00 | 580 | 3,045 | 00 | 700. | 2,800 | 00 | 500 | 2,155 | 25 |
| Unit Cost |  |  | 8 | 50 |  | 5 | 25 |  | 4 | 00 |  | 4 | 31 |

DIRECT-LABOR COST


The Cost Sheet
Figure 7.-Trace all material used in Production Order No. 10 back to the list of material requisitions in Figure 6. The entries for direct-labor charges and overhead are explained in the next paragraph. Evidently Production Order No. 10 was completed on January 28, since at that time all the manufacturing costs and expenses are summarized on the cost sheet. Refer to this cost sheet as you continue with the discussion. Assignment 24, Page 12
therefore, that each workman make out a daily report to show the time spent by him on each production order. These reports go to the cost department where they are summarized, by production orders, as shown in the second section of the cost sheet.

For example, John Davis reported his time in the factory for January 4, 1922, on a daily labor report as illustrated in Figure 8.


## Labor Report:

Figure 8.-This report contains information which is finally brought into the accounting records. Observe especially what elapsed time means.
These daily reports are numbered consecutively. The time that the workman starts and stops work on a job is recorded on the labor report by the workman or the foreman. The total time spent on a job is called elapsed time. The time reports of all productive workmen are collected daily, usually by the timekeeper, who is in charge of the pay roll. The timekeeper will check these time reports with the time clock cards and make any necessary corrections or changes. At the close of the day, he sends all the time reports to the cost department.

The cost department will now charge the labor to each job on the cost sheet provided, making the proper distribution between direct and indirect labor. The indirect labor is included under overhead, as shown in the cost sheet.

You will note the entries for direct labor on the cost sheet for Production Order No. 10. The accountant made these entries on the cost sheet at the close of each week, instead of daily, since that seemed to be a more convenient plan.

These time reports are then filed in the cost department for future reference. In some concerns, they are not sent to the cost department, but are retained by the timekeeper, in which case he sends only a summary to the cost department.

In any case, the cost department verifies the final pay roll for the general accounting department. In doing this, it uses the clock cards or the time reports. This pay roll is sent to the general bookkeeper, who enters it in the pay-roll voucher and then in the voucher register as a debit in the Goods-in-Process Account column and a credit in the Vouchers Payable Account column.

The indirect-labor charge is also entered in the voucher register, as explained later in the assignment.

Pay Roll-For Direct and Indirect Labor. The labor reports just described are the means of getting direct labor charged to the proper Cost Accounts. It is necessary, therefore, to have some record of the total time


The Pay Roll
Figure 9.-This pay roll, as you will note, does not give all the names of the employes. The totals given at the bottom therefore include the amounts and figures omitted. As you continue with the discussion, you will see how the total pay roll is distributed between direct and indirect labor.
of employes. Generally, the workmen are given clock numbers, and they are required to punch the time on a clock card when they come in and when they leave the factory. These clock cards are used in verifying the pay roll, a form of which is illustrated in Figure 9. Workmen engaged in indirect labor do not, as a rule, make out daily reports in the same manner as productive workmen, altho their time is also recorded on the pay roll. At the end of each pay period, the pay-roll distribution, part to direct labor and part to indirect labor, should agree with the total pay roll. If any advances are made to employes, they are deducted from the workmen's pay.

The pay-roll distribution for the week ending January 7, 1922, was as follows:


This pay-roll distribution would then be attached to the pay-roll voucher which would be recorded in the voucher register as follows:

Debit Columns:
Goods in Process . . . . . . . . . . . . . . . $\$ 4,700.00$
Indirect Labor . . . . . . . . . . . . . . . . 350.00
Credit Columns:
Vouchers Payable . . . . . . . . . . . . . . . $\$ 5,050.00$
A voucher check for the net amount of the pay roll, $\$ 4,660.00$, would be issued. The advances would be debited to Vouchers Payable when they were made.

The pay rolls of January 14, January 21, and January 28 would be treated in a similar manner. The amount accrued on January 31 would be recorded in the voucher register, but would not be paid until the first pay day in February. This method of handling accrued wages was explained in Assignment 22.

How Overhead Expenses Are Charged to Manufacturing Cost on the Cost Sheet. The next element of expense to be charged to production orders is the factory overhead. This is also included on the cost sheet under overhead, as given in Figure 7. You have already learned in Assignment 23 what items are included under manufacturing expenses or overhead, for example, janitors' wages, superintendents' salaries, repairs, depreciation, etc.

Overhead Distributed According to Direct-Labor Hours. There are various ways of distributing this overhead to the various production orders; for example, on the basis of direct-labor costs, on the basis of machine hours, or on the direct-labor hours. All these methods will be explained in detail in the section on Cost Accounting Procedure.

Since the last mentioned method of distributing overhead expense on the basis of direct-labor hours is the simplest, we shall explain it here.

The total manufacturing expense of the Beaver Manufacturing Company, for the month of January, 1922, which was charged to various manu-
facturing accounts in the general ledger, amounted to $\$ 3,900.00$, as shown below.


The number of direct-labor hours which were spent on the various production orders during January were as follows:


Since the tutal overhead, $\$ 3,900.00$, is to be distributed to these four production orders according to the number of direct-labor hours spent on each order, we must first determine the rate per direct-labor hour. This is done by dividing the total overhead by the direct-labor hours for the month, 15,600.

$$
\$ 3,900.00 \div 15,600=\$ 0.25 \text { per direct-labor hour. }
$$

In order to determine the amount of overhead for Production Order No. 10, we will multiply the number of direct-labor hours spent on Production Order No. 10, namely, 10,608 by $\$ 0.25$, which amounts to $\$ 2,652.00$. This is the amount you will find for overhead on the cost sheet for Prdouction Order No. 10, in Figure 7.

The overhead to be distributed to the other three production orders, 11,12 , and 13, is determined in the same way as in the case of Production Order No. 10. That is, the number of direct-labor hours spent on each order is multiplied by the hour rate, $\$ 0.25$, as shown in the following schedule:

| Order No. | Direct-Labor | Overhead Rate | Overhead |
| :---: | :---: | :---: | :---: |
| 10 | Hours | per Hour | Rxpense |
| 11 | 10,608 | $\$ .25$ | $\$ 2,652.00$ |
| 12 | 1,872 | .25 | 468.00 |
| 13 | 2,808 | .25 | 702.00 |
|  | 312 | .25 | 78.00 |
| Total | 15,600 |  | $\$ 3,900.00$ |

This total overhead expense, $\$ 3,900.00$, has been charged to the production orders on which work has been done, and therefore must also be used for an entry in the general journal as follows:

```
Debit: Goods in Process . . . . . . . . . . . . . . . . $3,900.00
    Credit: Manufacturing Expense . . . . . . . . . . . . . . . $3,900.00
```

How the Unit Cost Is Determined from Cost Sheets. In the cost sheet illustrated for Production Order No. 10, in Figure 7, you will observe that the three elements of factory cost have now been properly charged; namely:

## Direct Material Direct Labor Overhead

The job was completed on January 28. At the end of the month, the cost accountant fills out the summary at the bottom of the sheet for the various cost elements and ascertains the unit cost to be $\$ 16.40$. The finished product is transferred to the stock room to be left there until a shipping order instructs the shipping clerk to ship the commodity to the customer.

The cost sheet is taken out of the cost ledger and transferred to a ledger for completed work. If there are many classes of commodities manufactured, it is desirable to have stock records on which the quantity and value of each commodity received and shipped out of the stock room are recorded in the same manner as that described for stores records. The controlling account for the stock records is commonly designated "Finished Goods."

How Cost Ledger Is Controlled by Goods-in-Process Account. You have learned how the Paw-Material Account controls the stores ledger. It is just as important that the cost ledger should be controlled by the Goods-in-Process Account in the general ledger. The following outline shows how the cost ledger is related to Goods-in-Process Controlling Account.

1. The inventory of material in process, December 31, 1921, is debited in total to Goods-in-Process Account and in detail to the cost accounts.

Material requisitions are recorded in detail on the cost accounts but in total from the summary of requisitions to the controlling account.
2. The inventory of labor in process, December 31, 1921, is debited in total to the Goods-in-Process Account, and in detail to the cost accounts.

The daily labor reports for direct labor are recorded in the cost accounts, but are summarized and charged in total to Goods-inProcess Account.
3. A determined rate of overhead cost per hour is used. This rate is multiplied by the number of direct-labor hours expended on each production order during the month, and the amount is charged to the cost accounts. A summary of all such charges is debited to Goods-in-Process Account and credited to the Manufacturing Account.
4. When a production order is finished, the cost sheet representing the factory cost is transferred from the cost ledger. The finished prod-
uct is charged to Stock Accounts at the unit factory cost. A summary of all orders finished during the month is the basis of an entry debiting Finished-Goods Account and crediting Goods in Process.
5. The difference between the gross debits and the gross credits in the Goods-in-Process Controlling Account represents the inventory of goods in process at the end of the month. A list of all the charges for material, labor, and overhead on the cost sheets of orders uncompleted at the end of the month should total up to the amount of the balance in the Goods-in-Process Controlling Account.

Thus, we have a perpetual inventory of the cost accounts which are under control.

## STAGE 3

## Finished Goods in the Stock Room

When the product is finished so that it is ready for sale, it nasses from the Goods-in-Process stage to the Finished-Goods stage. Since the cost of each unit is known, finished stock records may be kept in the same manner as described for stores accounts. The Finished-Goods Account in the general ledger is debited with the factory cost of goods manufactured. When the goods are shipped out to customers, the factory cost of those goods may be ascertained. An entry may then be made at the end of each month debiting Cost-of-Goods-Sold Account, and crediting Finished Goods with the cost of shipments.

Method of Figuring Cost in Process Manufacturing. Thruout this assignment we have shown how the cost of production is determined by means of production orders; in certain industries, however, the production order method is not in use. This is due to the fact that the process of manufacturing is continuous and not according to specific orders. For example, in the manufacturing of soap, paper, cement, etc., the same material must pass continuously thru various processes and operations in such a way that it is impossible to determine where one lot ends and the next begins. In such cases, therefore, we must determine the unit cost of each process. This is found by dividing the total cost of each process by the number of units produced during a certain period. Then, the total manufacturing cost of each unit is the sum of the unit cost of each process.

More will be said about this method of cost determination in the section on cost accounting procedure.

Summary of Accounts in the Beaver Manufacturing Company. To summarize the situation of the Beaver Manufacturing Company after a perpetual inventory of the three stages of production had been in use for one month, we need only to know the factory cost of goods sold and shipped to customers. The cost of finished goods on hand on January 1, 1922 , amounted to $\$ 33,500.00$, and the factory cost of goods manufactured during the month amounted to $\$ 34,112.60$. It was found that the sales for the month amounted to $\$ 40,600.00$, the cost of which was $\$ 30,450.00$. The general ledger accounts would appear as follows:


GOODS IN PROCESS


FINISHED GOODS


COST OF GOODS SOLD

| 1922 |  | 1922 |  |
| :---: | :---: | :---: | :---: |
| Jan. 31 | Cost of finished goods shipped to customers . $\$ 30,450.00$ | Jan. 31 Transferred to Trading | \$30,450.00 |

SALES

| 1922 |  |
| :---: | :---: |
| Jan. 31 | Transferred to Trading . |
| $\$ 40,600.00$ |  |$\|$| 1922 |
| :---: |
| Jan. 31 Sales for January $\ldots$ |

The balances of the Cost of Goods Sold and Sales Accounts are now closed into the Trading Account. It should be understood, of course, that all the transfer entries referred to above should be made by journal entries, as was fully discussed in Assignment 6.


The Trading Account is only a summary account, which is set up at the end of the accounting period for the purpose of recording permanently the gross profit for each period. In actual practice it will often be found that the closing entries are made directly to the Profit-and-Loss Account.

You should now examine this Trading Account together with that illustrated in Assignment 23. You will note that by maintaining perpetual inventories it is not necessary to set up the finished goods inventory by debiting or crediting the Trading Account, as the case may be, because the inventory is already on the books.

The Goods-in-Process Account compares, in a similar manner, with the Manufacturing Account in Assignment 23.

The perpetual inventory thus enables the accountant to ascertain the financial condition of the business at the close of every month thru the preparation of a balance sheet and profit and loss statement, without taking a physical inventory.

## MAIN POINTS OF THIS ASSIGNMENT

This problem, taken from the Beaver Manufacturing Company and carried thru Assignments 23 and 24, illustrates in a very practical way the application of the most fundamental principles of factory accounting. There are many other important features that are essential to a knowledge of cost accounting, which will be treated fully in a later section of your course.

For the present, we are concerned with certain elementary principles that govern manufacturing accounts, which may be briefly summarized thus:

First: The perpetual inventory plan provides an accurate control for inventories. Losses from theft, breakage, etc., can be quickly discovered. It also does away with prolonged shutdowns.
Second: It provides an accurate record of materials in case of loss by fire.
Third: It makes possible monthly statements without the work of taking physical inventories.
Fourth: The perpetual inventory records are controlled by accounts on the general ledger.

1. Raw-Materials Account controls the stores ledger.
2. Goods-in-Process Account controls the cost ledger.
3. Finished-Goods Account controls the finished-stock ledger.

Fifth: The stores ledger accounts contain a record of goods received, goods taken out, and balance on hand. Entries are made from the material requisitions.
Sixth: The cost ledger is made up of cost sheets, one for each production order. The cost sheet contains a record of material used, direct labor, and overhead. The data on the cost sheet is taken from the material requisitions, the direct-labor reports, and the overhead distribution.
Seventh: Overhead may be distributed in various ways. In this assignment it is distributed according to direct-labor hours.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 24

You are asked to solve the following problems which have been selected from various manufacturing plants and adapted to the discussion of this assignment:

1. The inventories of the Piston Ring Company at the close of the year ending December 31, 1921, are as follows:
```
Raw Material . . . . . . . . . . . . . . . . . . . . . . . . . $16,835 . 00
Goods in Process . . . . . . . . . . . . . . . . . . . . . . . . . 11,910.00
Finished Goods . . . . . . . . . . . . . . . . . . . . . . . . . 28,812 .00
```

During the month of January, 1922, the purchases of raw materials amounted to $\$ 18,498.00$. A summary of material requisitions showed that there had been charged to production orders during the month raw materials to the amount of $\$ 17,308.00$.
The direct labor charged to production orders during the month was \$23,785.00.
The overhead charged to production orders on the basis of direct-labor hours amounted to $\$ 13,325.00$.
The total factory cost of goods finished during January was $\$ 36,310.00$.
The sales to customers amounted to $\$ 75,500.00$, the cost of which was $\$ 50,400.00$.
(a) Show journal entries for recording transactions during January.
(b) Prepare, as of January 31, 1922, the following ledger accounts:

Raw Material
Goods in Process
Finished Goods
Cost of Goods Sold
Sales
(c) Indicate the amount and per cent of gross profit on the sales for January.
2. State clearly what transaction or operation probably caused each of the following entries to be made, and from what source you will get the information to determine the amount of the entry in each case:

```
(a) Materials in Process . . . . . . . . . . . . . . . . . . $200.00
$200.00
(b) Accounts Receivable (J. B. Jones) . . . . . . . . . . . $800.00
        Sales
    Cost of Goods Sold . . . . . . . . . . . . . . . . . . . $600.00
        Pinished Goods in Stock . . . . . . . . . . . . . . . 
(c) Direct Labor . . . . . . . . . . . . . . . . . . . . . . $200.00
        Cash
    $200.00
```

3. Using the following data, prepare a cost sheet for Production Order No. 22, which requires 2,000 of Article A to be manufactured for finished stock. The order was started December 15 and completed December 31, 1922.

The following is a list of material requisitions:

| Date | Number | Material | Quantity | Amount |
| :---: | :---: | :---: | :---: | ---: |
| Dec. 15 | 846 | Material | $X$ | $2,200 \mathrm{lbs}$ |

From the weekly labor summaries the following information applying to this order is obtained.

| Week Ending | Amount | Hours |
| ---: | ---: | ---: |
| Dec. 16 | $\$ 197.00$ | 380 |
| " 23 | 850.00 | 1,680 |
| " 30 | 213.00 | 540 |

Overhead expense is distributed on the basis of direct-labor hours, the rate being $\$ 0.30$ per hour.

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 25 <br> CLASSIFICATION OF ACCOUNTS

TOO many young men have an idea that opportunity must be thrust upon them, and do nothing to prepare themselves for grasping it when it comes. In spite of the fact that our company has refused to go outside for its officials and has promoted men from the ranks, we have had case after case where we have actually tried to thrust promotion upon men who were apparently ambitious but who had left themselves unprepared.

Walter C. Allen
President
Yale $\mathcal{E}$ Towne Lock Company

# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branciies-Consignments
29. Comparative Statements
30. Analysis of Financial Statemenṭs-General Review

## CLASSIFICATION OF ACCOUNTS

Accountants aim to keep their records in an orderly and accurate manner, so that at any time they can collect from these records any information that the business man desires.

To provide an effective and usable record, it is necessary to classify properly all details that go into the record. It is also essential to classify the data when taken from the record and summarized in the accounting statements and reports. In other words, classification is one of the fundamental principles running thruout all accounting work. To be able to classify accounting facts properly is one of the chief qualifications of the good accountant.

In the preceding assignments, classification has been illustrated in many ways. For example, the following methods have been explained:

1. Items on the balance sheet, the profit and loss statement, and the manufacturing statement should be so classified that business men will find it easy to understand and interpret them.
2. Transactions are so classified in the ledger accounts as to provide definite summaries for the statements.
3. Entries in the special journals are classified into columns to make possible the posting of totals to the ledger.
4. The ledger is subdivided and all customers' and creditors' accounts are classified respectively into the accounts receivable and accounts payable groups.
5. Auxiliary records are arranged for the classification of numerous details, as the petty cash book, the car record book, the insurance book, the note register, etc.
6. The working sheet aids in properly classifying items preliminary to preparing the balance sheet and the profit and loss statement.
7. The voucher system and the perpetual inventory system make possible a more detailed classification of charges and costs.
8. In factory accounting, the costs and expenses of manufacturing are classified separate from the administrative and selling expenses, so as to provide information that is important to the manufacturer.

This is a brief summary of the various phases of the principles of classification in accounting. Other uses might be mentioned, but these eight show plainly their importance to the accountant. The chief purpose is to provide an accurate summary of business transactions in financial statements that are explanatory of results. In other words, classification helps the accountant to secure and classify information which will aid the busi-
ness man to control his business most efficiently. These general principles apply especially to the grouping of accounts and the securing of business statistics.

How Ledger Accounts Are Classified. While accounts have been grouped in various ways by different accounting authorities, there are two methods that have been used more than any others. With these you should be thoroly familiar.

Accounts were originally classified into two groups, personal and impersonal.

1. Personal accounts included all accounts with persons; for example, customers, creditors, and proprietors.
2. Impersonal accounts included all such accounts as Cash, Merchandise, Equipment, Buildings, etc.
This is the classification that was used first when the double entry system was adopted in place of the single entry system. According to the single entry method, which will be explained in the next assignment, accounts were kept only with persons. When double entry was introduced, new accounts were also set up for various assets and liabilities; in other words, impersonal values. Naturally, with this transition accounts were classified into two groups, namely, personal accounts and impersonal accounts.

This classification, however, proved to be inadequate, because it did not meet the statistical needs of business. As the science of business developed, there sprang up a greater demand for information on every phase of business operations. The result was a grouping of accounts more in accordance with business functions so that they could be easily summarized in the financial statements, as explained in the following paragraph.

Accounts are now generally classified as real and nominal.

1. Real accounts, which show the financial condition of a business, such as-

Assets
Liabilities
Capital
2. Nominal accounts, which show the progress from operations, resulting in an increase or decrease of capital.
(a) Trading accounts, such as Purchases, Sales, Purchase Returns, Sales Returns, etc.
(b) Manufacturing accounts, such as Supplies, Labor, Repairs, Depreciation, etc.
(c) Selling and administrative accounts, such as Salesmen's Commissions, Delivery Expense, Advertising, Postage, Insurance, etc.
(d) Income charges and credits, such as Interest, Sales Discounts, Purchase Discounts, Miscellaneous Income and Expense.

This broad classification of accounts into the real and nominal groups is the basis for all scientific account construction. It is the controlling principle back of all accurate accounting. These large groups are still further subdivided in the following discussion.

Classes of Assets. Assets are classified into subgroups according to the nature of the assets; for example, current, fixed, intangible, deferred, etc. Each of these groups in turn includes a certain number of primary or detail accounts. The various detail accounts might be grouped thus:

```
CURRENT ASSETS
    Cash
    Accounts Receivable
    Notes Receivable
    Raw Material
    Goods in Process
    Supplies
    Merchandise or Finished Goods
    Accrued Interest Receivable, etc.
FIXED ASSETS
    Buildings
    Equipment
    Machinery
INTANGIBLE ASSETS
    Goodwill
    Patents, Trade-Marks, etc.
DEFERRED ASSETS
    Prepaid Insurance
    Prepaid Rent
    Advertising
    Organization Expense
    Moving Expense
```

Classes of Liabilities. Liabilities are classified into current and fixed, according to whether the indebtedness is for a short or long period. Accounts Payable, for example, are current liabilities, because they will be paid within a reasonably short time; Bonds Payable, on the other hand, are fixed liabilities, since they usually run for a period of years. Some special provision is usually made for their payment by means of a sinking fund. The various detail accounts might be grouped thus:

CURRENT LIABILITIES
Accounts Payable
Notes Payable
Accrued Interest Payable, etc.
FIXED LIABILITIES
Mortgages
Bonds Payable
Long-Term Notes
Debenture Bonds

Proprietary Interest or Net Worth. The third class of real accounts represents capital or net worth. Net worth, in a single proprietership, is carried in one account, that of the owner; in a partnership, the ownership is distributed in the Capital Accounts of the several partners; and in a corporation, the proprietary interest is shown in two accounts, one for Capital Stock, and the other for Surplus.

Trading Accounts. Every business has certain trading activities which consist of the buying and selling of merchandise or the purchasing of raw materials to be sold later as a manufactured product. Accordingly, two main groups of accounts are needed to determine the gross profit: a sales group and a purchase group. The primary accounts might be as follows:

PURCHASES

> Gross Purchases
> Purchase Returns
> Purchase Alowances
> Freight Inward

SALES
Gross Sales
Sales Returns
Sales Allowances
In the case of manufacturing, there is added to the raw materials, as they are processed in the factory, the direct labor and manufacturing expenses, in order to determine the cost of production. The special features of factory accounting dealing on this subject were fully explained in Assignments 23 and 24 . In making a classification of accounts, the elements of direct labor and factory expenses are generally grouped together, as stated in the following section.

Manufacturing Accounts. The special accounts needed by a manufacturing concern are those arising from the manufacturing operations. They consist of direct labor, power purchased or produced, and such factory expenses as heat and light, depreciation, taxes, and insurance. All these costs and expenses are kept separate from other operating expenses, so that the cost of production can be easily determined and controlled.

Selling and Administrative Accounts. These accounts are subdivided according to the kind and amount of information desired by the management. In a large concern, more detail accounts are needed than in a small concern. Many businesses divide them into three groups, each of which has several detail accounts, as follows:

SELLING EXPENSES<br>Salesmen's Salaries<br>Salesmen's Traveling Expenses<br>Salesmen's Commissions<br>Advertising<br>ADMINISTRATIVE EXPENSES<br>Officers' Salaries<br>Office Salaries<br>Postage<br>Telephone and Telegraph

## GENERAL EXPENSE

Depreciation
Taxes
Insurance
Income Charges and Credits. Under this heading are grouped all accounts for incidental or nonoperating transactions, such as Interest Expense and Interest Earned, Discounts Allowed and Discounts Earned, etc. These expenses and incomes are incidental in that they are not a part of the operations of the business. Business men want to know what their true operating profit is regardless of financial circumstances. That is why all such transactions are recorded in a group of accounts separate from the operating accounts.

Problem Illustrating Classification of Accounts. An easy way to understand the classification of accounts is to take a trial balance, such as the one given in Figure 1, and group the accounts into their proper classes.

| C. G. Wilson <br> TRIAL BALANCE, December 31, 1922 |  |  |
| :---: | :---: | :---: |
| Delivery Equipment | \$ 700.00 |  |
| Accounts Payable. |  | \$ 780.00 |
| Accounts Receivable. | 3,640.00 |  |
| Capital, C. G. Wilson |  | 5,633.00 |
| Cash . | 1,255.00 |  |
| Sales Discount | 146.00 |  |
| Purniture and Fixtures | 500.00 |  |
| Income from Rent. |  | 195.00 |
| Insurance Expense | 330.00 |  |
| Interest Expense . | 110.00 |  |
| Merchandise Inventory January 1, 1922 | 1,670.00 |  |
| Notes Payable . . |  | 2,000.00 |
| Notes Receivable. | 1,600.00 |  |
| Office Expense | 645.00 |  |
| Purchases | 6,810.00 |  |
| Purchase Discounts |  | 114.00 |
| Rent. | 1,375.00 |  |
| Sales . . . |  | 12,460.00 |
| Selling Expense ${ }^{\text {Stationery and office Supplies (Expense) }}$ | 720.00 416.00 |  |
| Wages . . . . . . . . . . . . . | 1,047.00 |  |
| Interest Receivable | 11.00 |  |
| Interest Earned |  | 11.00 |
| Wages Payable. |  | 17.00 |
| Interest Payable |  | 20.00 |
| Prepaid Rent | 125.00 |  |
| Stationery and Office Supplies (Inventory) | 40.00 |  |
| Prepaid Insurance . . . . . . | 90.00 |  |
|  | \$21,230.00 | \$21,230.00 |
| Current Inventory, \$1,960.00 |  |  |

Trial Balance
Figure 1.-Using this trial balance, we classify the accounts in their proper groups. Follow the discussion to see how this is done.

## CLASSIFICATION OF ACCOUNTS FOR C. G. WILSON

## I-Real Accounts

## CURRENT ASSETS

Cash
Merchandise
Accolnts Receivable
Notes Receivable
Accrued Interest Receivable
FIXED ASSETS
Delivery Equipment
Furniture and Fixtures
DEFERRED CHARGES
Prepaid Rent
Prepaid Insurance
Stationery and Office Supplies

## CURRENT LIABILITIES

Accounts Payable
Notes Payable
Accrued Wages Payable
Accrued Interest Payable

## PROPRIETORSHIP

C. G. Wilson, Capital

## II-Nominal Accounts

TRADING ACCOUNTS
Purchases
Sales
OPERATING EXPENSES
Selling Expense
Wages
ADMINISTRATIVE EXPENSE
Stationery and Office Supplies
Office Expense
GENERAL EXPENSE
Rent
Insurance
INCOME CHARGES AND CREDITS
Income Charges
Sales Discounts
Interest Expense
Income Credits
Income from Rent
Interest Earned
Purchase Discounts

You should study carefully this classification before reading further in the assignment. In this way you will more easily grasp the underlying principles which are discussed.

Reasons for Grouping Accounts into Classes. There are numerous advantages resulting from the classification of accounts. Note especially the following:

1. Classification of accounts helps the accountant to distinguish clearly between capital and revenue expenditures. For example, a capital expenditure, say $\$ 1,500$ for an auto truck, may be incorrectly brought into the Delivery Expense Account instead of the Delivery Equipment Account, unless it be clear from the start that this transaction is a charge to an account in the asset group rather than to an account in the operating expense group. Thus, by first placing the transaction in the proper group, the chances for error are greatly reduced. All that remains to be done is to charge the proper account in the asset group. The auditor is especially interested in detecting incorrect entries for Capital and Revenue expenditures.
2. Classification of accounts aids in the preparation of the financial statements because the accounts are properly grouped in the ledger with as little mixture of the real and nominal elements as possible. Thus, the accounts can be conveniently summarized in the statements.
3. Furthermore, a good classification makes possible a further subdivision of detail accounts to meet the demands of an expanding business. As the business grows, there will be greater need for detail information; hence, new accounts can be set up in which this information is to be collected. As these accounts grow in number, it will be all the more necessary that they be properly related to all the other accounts. This can be accomplished best by classifying all new accounts in their proper groups.

Advantages of Uniform Classification of Accounts. During recent years an effort has been made on the part of certain trade associations to develop uniform classifications of accounts for certain trades and lines of industry.

For example, the United Typothetae of America has developed a standard classification of accounts for printing concerns and allied businesses. Such a uniform classification is intended to aid the printing business to maintain orderly records, so that when the operating costs of various printing firms are compared these costs will be on the same basis, and therefore the results of the comparison will be reliable and will reflect the facts.

Uniform classifications have also been worked out by such associations as the National Canners Association, the Portland Cement Association, the Coöperative League of America, the National Retail Dry Goods Association, and others.

Corporations regulated by the government, such as railroads, steamship lines, banks that are members of the federal reserve system, etc., are required to use account classifications recommended by the Interstate Commerce Commission and the Federal Reserve Board. This requirement is made for the sake of convenience, so that reports required of these corporations may be used for statistical purposes. In this way the reports submitted by such corporations can be compared without recasting and rearranging the accounts.

Account Classifications Vary According to Business Needs. It should be pointed out here that the classification of accounts varies according to the needs of a certain business and the ideas of certain business men. Moreover, accountants differ in their opinions. One accountant will classify certain accounts differently than another.

This variation, however, does not affect the main classification. You will find that only certain accounts are handled in different ways; for example, Taxes, Insurance, Discounts, Bad Debts, etc.

Taxes and Insurance, for instance, in many concerns are placed in the general operating expense group, while in other businesses they are classed as "income charges." The reason usually advanced for placing them in the income group is that both items represent expenses for the protection of capital. They are therefore considered similar to interest that is paid for the use of borrowed capital.

Discounts on Purchases and Sales are also handled in various ways. In certain cases, they are made deductions from Purchases and Sales, and hence belong to the trading group. More generally they are considered as an income credit or charge. The principle given for the first method is that a discount has the effect of reducing the amount actually paid or received for purchases and sales. Due to the fact that discounts are primarily used to encourage prompt settlement of accounts, and are thus very closely related with the financial requirements of the business, seems more logical to classify them as income items. You will note that they are so considered in the problems of this assignment.

Losses from bad debts are sometimes shown as an operating, administrative or selling expense, and at other times as an income charge. If a regular provision for losses from bad debts is made for each period, as explained in Assignment 17, the first method would seem to be the most logical. When, however, accounts are charged off as they are found to be worthless or uncollectible, it is better to consider them as a charge to income after the net profit from operations has been determined.

Classification of Accounts Made More Valuable by Use of Numbers, Various methods of numbering accounts have been developed as an aid in the proper grouping of accounts. For example, the account for cash in the office can be given a certain number, the account for cash in the bank another, and when referring to these accounts the numbers may be used. Thus, by using numbers in place of account titles, the accountant saves considerable time in locating accounts in the ledger, and in indi-
cating accounts on vouchers and in the voucher register. Numbers are often used to advantage on purchase vouchers, where the charges are classified by one person and recorded by another.

Letters of the alphabet are also sometimes used. In some cases, letters are combined with numbers, particularly in concerns that have several operating departments. For example, a certain trading concern in Chicago has four departments, wheh are designated by a letter of the alphabet, A, B, C, and D. The Purchase Account for Department A is designated as Account A 411, and that for Department B, as B 411. Whatever numbering device is employed, it should always provide for expansion. That is, the numbers should be assigned to accounts in such a way that when new accounts are needed, they can be numbered without changing the entire numbering system of accounts.

The number system has two advantages:
It aids in the logical grouping of the accounts; that is, the accounts are brought into their natural sequence.
It saves time in offices where there is a considerable amount of classifying and tabulating work to be done.
The following classification of accounts, which was taken from a mercantile business, does this very thing. It admits of further expansion, and for this reason has met with considerable favor.

## CLASSIFICATION OF ACCOUNTS BY NUMBERS

## 1. Assets

## 11 CURRENT ASSETS

111 Cash
1111 Cash in Bank
1112 Petty Cash
112 Accounts Receivable
1121 Accounts Receivable A-D
1122 Accounts Receivable E-M
1123 Accounts Receivable N-T
1124 Accounts Receivable U-Z
113 Notes Receivablie
114 Accrued Interest Receivable
115 Accrued Commissions Receivable
116 Merchandise Inventory
12 FIXED ASSETS
121 Land
122 Buildings
123 Machinery
124 Delivery Equipment
125 Furniture and Fixtures
13 DEFERRED CHARGES
131 Prepaid Insurance132 Prepaid Rent
2. Liabilities
21 CURRENT LIABILITIES
211 Accounts Payable or Vouchers Payable
212 Notes Payable
2121 Notes to Creditors
2122 Notes to Officers of the Concern
213 Accrued Interest Payable
214 Accrued Wages Payable
22 FIXED LIABILITIES
221 Mortgages Payable
222 Bonds Payabie
2221 Issue A
2222 Issue B
23 VALUATION ACCOUNTS
231 Notes Receivable Discounted
232 Reserve for Bad Debts
233 Reserve for Deprectation
3. Capital
31 CAPITAL STOCK
311 Preferred
312 Common
32 SURPLUS
321 Surplus (Undivided Profits)
322 Reserve-Appropriated Surplus
4. Profit and Loss
41 TRADING
411 Purchases
412 Purchase Returns
413 Purchase Allowances
414 Freight Inward
415 Cartage Inward
416 Sales
417 Sales Returns
418 Sales Allowances

## 42 OPERATING

## 421 Administrative Expenses

4211 Office Salaries
4212 Office Supplies
4213 Telephone and Telegraph
4214 Postage
4215 Light and Heat

422 Selling Expenses
4221 Salesmen's Commissions
4222 Salesmen's Traveling Expenses
4223 Delivery Expense
4224 Advertising
4225 Losses from Bad Debts (when losses are charged against the selling department)

423 General Expenses
4231 Rent
4232 Depreciation
4233 Insurance
4234 Taxes

## 5. Income Charges and Credits

## 51 INCOME CHARGES

511 Interest Expense
512 Sales Discounts

## 52 INCOME CREDITS

521 Interest Earned
522 Rent Received
523 Purchase Discounts
Some accountants prefer to use a primary number for each main account group, like the following:

1. Current Assets
2. Fixed Assets
3. Deferred Assets
4. Current Liabilities
5. Fixed Liabilities
6. Reserves
7. Capital and Surplus
8. Revenue and Income
9. Costs and Expenses

Each of these groups would then be subdivided and numbered thus:

\author{

1. Current Assets <br> 11 Cash <br> 12 Merchandise <br> 13 Notes Receivable <br> 2. Fixed Assets <br> 21 Land <br> 22 Buildings <br> 23 Machinery
}

The simpler the numbering system the better. What would be appropriate for one business might not be usable by another concern. It is necessary, therefore, that the accountant be thoroly familiar with the needs of a business, so that he can arrange a practical classification and numbering system.

Group Accounts Not Found on the Ledger. After you have examined carefully the above classification, select those that are merely summary or group accounts, which do not appear on the ledger. The account 1, Assets, for example, does not appear on the ledger, neither does 11, Current Assets, nor 111, Cash. All these are group accounts, which are for purposes of classification on the balance sheet and profit and loss statement only.

Accounts Appearing in the Ledger. After you have eliminated from the classification all the group accounts, you should have the following accounts appearing in the ledger. These are sometimes called primary accounts.

| 1111 | 121 | 213 | 321 | 4211 | 4231 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 1112 | 122 | 214 | 322 | 4212 | 4232 |
| 1121 | 123 | 221 | 411 | 4213 | 4233 |
| 1122 | 124 | 2221 | 412 | 4214 | 4234 |
| 1123 | 125 | 2222 | 413 | 4215 | 511 |
| 1124 | 131 | 231 | 414 | 4221 | 512 |
| 113 | 132 | 232 | 415 | 4222 | 521 |
| 114 | 211 | 233 | 416 | 4223 | 522 |
| 115 | 2121 | 311 | 417 | 4224 | 523 |
| 116 | 2122 | 312 | 418 | 4225 |  |

You will find in going over the classification that certain detail accounts might be set apart in subsidiary ledgers. These would then be controlled by a representative account on the general ledger. For example, 112, Accounts Receivable, may be made a controlling account, with the subaccounts 1121 to 1124 as subsidiary accounts; 421, Administration Expense may also be used as a controlling account for the group 4211 to 4215.

Importance of Clear and Definite Account Titles. The account name or title should represent what the account contains, and should indicate its main classification. Some account titles are misleading and confusing. For example, the title Freight Account does not show clearly whether
it is a record of freight paid on goods coming to the business or freight paid on goods going out to customers. It would be better to have two accounts for freight, one for freight in and another for freight out.

An auditor who was recently examining the books of a manufacturing concern found that entries had been made incorrectly on the books for certain interest transactions. This was due to the fact that several accounts were kept for interest. There were three accounts on the ledger, and all three had the same title, "Interest." One was for interest earned, another for interest expense, and another for accrued interest, in which interest receivable was debited and interest payable was credited.

It was suggested that each of these accounts be given the proper title, Interest Earned and Interest Expense, also that the Accrued Account be divided into two accounts, one for Accrued Interest Receivable and another for Accrued Interest Payable. In this way the account titles indicated to what classification each account belonged.

Another example of an improperly named account is the old Merchandise Account which has now been almost entirely done away with. In its place we have separate accounts for purchases, sales, and inventory. A good accounting principle is to make the balance of every account show one fact, so that its elements do not need to be analyzed.

## CONTENTS OF EACH ACCOUNT

A classification of accounts is incomplete unless accompanied by an explanation of the character of each classification, the nature of each account, and, in general, the kind of transactions to be charged or credited to it.

Thru previous assignments you have gained some knowledge of the use and purpose of the usual accounts to be kept. Certain accounts, however, require special consideration. You should be so thoroly acquainted with the classification of accounts given in this assignment that you can give accurate directions for their use from memory.

## 1. Asset Accounts

This term is applied to that class of accounts which record properties, claims, and other values owned. It is used only on the balance sheet.
11 CURRENT ASSET ACCOUNTS. Current Assets is a term that applies to the assets which will, in the course of ordinary business operations, be converted into cash. It is used only on the balance sheet.

111 Cash. This account, in the illustration given, is an account for the two following cash accounts. It may be used on the balance sheet to include all cash, but generally it is better to show the detail accounts given here.

1111 Cash in Bank. This title is generally used for the account which shows the general cash receipts and disbursements.

It is debited with the total cash received each period and credited with the total cash disbursed. The balance should agree thru reconcilement with the balance in the bank.
1112 Petty Cash. An account called "Petty Cash" is kept for the office fund. It is debited with the original amount placed in the petty cash fund and with any additions made later to the fund. It is credited only when the amount of the fund is reduced. During its existence there should always be either actual cash or petty cash vouchers on hand to equal the fund. The balance of the account represents a current asset.

112 Accounts Receivable. This title applies to the group of four controlling accounts given as follows:

> 1121 Accounts Receivable A-D
> 1122 Accounts Receivable E-M
> 1123 Accounts Receivable N-T
> 1124 Accounts Receivable U-Z

Each of the above is a controlling account on the general ledger for a section of the customers' ledger. The account is debited with total charges from sales and with any adjustments made with customers that increase the amounts due from them. The account is credited with the collections from customers, as recorded in the cash book, with returns and allowances, and with any losses from bad debts. The balance of each controlling account should agree with the total of the subsidiary ledger.

113 Notes Receivable. Notes Receivable is a current asset account. It is debited with the face value of notes accepted from customers or other debtors. It is credited with the cash received in payment of such notes, and with notes discounted on which the contingent liability has been removed. In case renewal notes are taken, the old note should be credited and the new one debited. Notes taken from officers or employes should be carried in a special account. The balance of the account, after deducting the amount of Notes Receivable Discounted, is a current asset.

116 Merchandise Inventory. This account is debited with the inventory at the beginning of the period. It is credited at the end of each period, when closing the books, with the previous inventory. The current inventory is then entered as a debit, which represents a current asset.

12 FIXED ASSET ACCOUNTS. Fixed assets is a term that applies to those accounts which represent the properties and other values of a permanent nature to be continually retained as the fixed investment of the business.

121 Land. This account is for recording the cost of land and land improvements. The term "land improvements" does not include buildings and other structures, but means improvements such
as roadways, curbing, sidewalks, drainage, etc. The account will always show a debit balance. It should be credited only when land is sold for the cost value of the portion disposed of.
122 Buildings. The Building Account is debited with the original cost of the buildings, and with any additions or extensive improvements. It is credited with the cost in case of sale, or when the property is disposed of or destroyed. The depreciation which accrues periodically is not credited to the Asset Account, but is carried in a Reserve for Depreciation Account.
123 Machinery. The Machinery Account is debited with the original cost of machinery and with any important replacements or betterments, as well as additions. It is credited with the cost of all machinery sold, destroyed, retired, or replaced. There should always be a debit balance, which is offset by the accumulated accrued depreciation.
124 Delivery Equipment. This account is debited with the purchase of horses, wagons, autos, etc., that are to be used for delivery purposes. It is credited for the cost, whenever any of the above property is disposed of or removed from use. It is offset by the accrued depreciation, the balance being a fixed asset.
125 Furniture and Fixtures. This account records the cost of all furniture and equipment, including such items as window shades, curtains, rugs, etc. Care should be taken, however, not to charge the account with articles which have a life of less than one year. Like the three accounts above, it is offset by the accrued depreciation.
13 DEFERRED CHARGES. This account provides a classification for all prepaid expenses. For example, Insurance (shown as 131) may be paid for three years. The expense is distributed equally over the three years, which requires accounts for carrying the unexpired or deferred amount. Other examples of deferred charges are Taxes, Rent, Interest, etc.

## 2. Liability Accounts

This term is applied to that class of accounts which record all indebtedness or values owed. It is used only on the balance sheet.
21 CURRENT LIABILITY ACCOUNTS. Current liabilities is a term that applies to those obligations which must be paid within the following period of operation. One year is usually taken as the time limiting a current liability. All open accounts, Notes Payable, and accrued items usually fall under this heading.
211 Accounts Payable or Vouchers Payable. All merchandise purchased on account gives rise to an account payable or voucher payable. In modern practice, as we have noted, these purchases are summarized in the purchase journal or the voucher
register. The total for the period is then posted to the credit of the Accounts Payable Account. The account is debited for the payment made to those creditors in settlement.

212 Notes Payable. This is a group account under which is classified all indebtedness in the form of notes, including, generally, trade acceptances as well. For balance sheet purposes, however, notes payable are divided into two classes, 2121 and 2122.
2121 Notes to Creditors. This account shows the amount owed in notes to outside creditors. It is a credit account always. It is often an aid to check notes paid against the entry for the note given, the unchecked entries being the notes still outstanding. The interest on all notes payable should be debited to account 511, of course, and only the amount of the note itself debited to this account.
2122 Notes to Officers. This account is handled similarly to 2121, except it is for notes given to officers of the corporation. It is made a special account merely for the purpose of proper statement on the balance sheet.

22 FIXED LIABILITY ACCOUNTS. This is a term applied to a group of accounts made up of the long-term obligations, such as mortgages and bonds. It is used merely as a balance sheet heading.

23 VALUATION ACCOUNTS. In preceding assignments you have had a complete discussion of what is meant by valuation accounts. They are directly related to certain asset accounts, in that they represent credit offsets to such accounts. For example, 231 Notes Receivable Discounted is credited with all notes receivable that are discounted, for the sake of recording the contingent liabilities created in discounting notes receivable. The valuation accounts are classed here under liabilities simply because they show credit balances and are thus similar to liabilities from a bookkeeping point of view. They are not, however, strictly speaking, liability accounts, and should always be considered in relation to their asset component.

## 3. Capital

Capital represents the proprietary interest, commonly called net worth.
It is the net claim that the owners have on the business.
31 CAPITAL STOCK. This account records the original investment made by the various stockholders. It is divided into two subaccounts, which keep the interests of preferred and common stockholders entirely separate.

32 SURPLUS. This account accumulates the increase in investment from all sources which may be divided into surplus, entirely unappropriated, and appropriated surplus, which has been set aside by the directors for a designated purpose.

## 4. Profit and Loss

This classification has been provided for the segregation of accounts dealing with the direct operating activities of the business.

41 TRADING. The trading accounts are those dealing with the purchase and sales transactions. The term "trading" primarily applies only to trading concerns, that is, concerns that buy and sell commodities for the purpose of making a profit. The two primary elements which enter into the trading accounts are:

## The total revenue from sales

## The cost of the goods sold

The total revenue from sales is not all income, neither is the total cost of the goods sold wholly a loss, but the difference gives the gross profit or loss. The trading accounts form the first section of the profit and loss statement, which is sometimes called the trading statement. The exact nature of the trading account is easily brought out in the case of a shoe merchant who buys a pair of shoes for $\$ 4.00$ and sells them for $\$ 5.00$. Here the $\$ 5.00$ is the total sales, or incoming value, while $\$ 4.00$ is the cost of goods sold, or outgoing value. The gross profit of $\$ 1.00$ must cover his operating expenses and whatever net profit he finally realizes.

411 Purchase Account. To this account is debited the invoice cost of merchandise bought to resell. At the end of the period the total purchases becomes a charge to the Trading Account, where it is adjusted by the new inventory of merchandise on hand. If the Purchase Returns Account, which is explained below, is not used, there will be credits to the Purchase Account for all merchandise not accepted and returned to the vendor.

412 Purchase Returns. This is a credit account, which is an offset to Purchases. It is as if the credit side of Purchases Account was separated bodily and made into a distinct account. With this relationship to Purchases Account in mind, it is easy to see that Purchase Returns Account will always have a credit balance. At the time of closing, the usual practice is to transfer Purchase Returns to the credit of Purchases, and thus determine the net purchases for the period.
413 Purchase Allowances. This is another credit account, and a direct deduction from Purchases. When goods purchased are received in an unsalable condition because of damage, faulty construction, substitution of cheaper goods, etc., an adjustment is required correcting the cost of the merchandise. Altho the account is very similar to Purchase Returns, it is better to keep a separate account in order to obtain the information for management purposes.
414 Freight Inward. In making purchases at a distance, it is customary for the buyer to pay the freight. This is an additional
cost of the merchandise. It is better, in most cases, however, to keep the freight cost as a distinct item, and not charge the freight direct to Purchases. It enables a closer check on freight charges, and shows the total amount by which the merchandise is increased thru transportation. The theory that freight is a real cost is based on the assumption that change of location for sales purposes adds to its intrinsic value. Suppose, for example, that we sell automobiles. An automobile is worth more to a purchaser if it is in his locality, than it is at the factory. The invoice cost may be said to be the form value; the freight cost, the additional location value.

415 Cartage Inward. Where it is desired for statistical purposes, a separate Cartage Account may be kept, but in general it is the practice to include cartage in an account with freight, called "Freight and Cartage Inward." The Cartage Inward Account is closed into the Trading Account at the end of the accounting period. As far as this special account is concerned, once it is adopted it is immaterial whether the cost of cartage arises in the hire of public drays and trucks, or from the expense of maintaining trucking equipment. In the first case, the cost comes to the Cartage Account directly from the cash book or voucher register; in the second, the cost is likely to be only a part of another account, such as Delivery Expense. When delivery or trucking equipment is used partly for delivering goods sold and partly for carting goods received from railroad to store, then the total cost of operating the delivery equipment should be prorated between Cartage Inward and Cartage Outward.

416 Sales. To this account is credited the gross amount of the goods sold. There should be no debits to this account except for actual corrections in amount billed, which are true offsets to sales. At the end of the period, the balance is transferred to the Trading Account.
417 Sales Returns. This account is simply an offset or negative to the Sales Account. Its operation would be similar to the Purchases Returns Account.
418 Sales Allowances. This account is also a deduction from Sales, but like Purchase Allowances, it is usually the better practice to show the deductions on the profit and loss statement as information for the management.

42 OPERATING. This is merely a group heading and would not appear on the ledger. Generally, the three divisions under operating, as shown in the classification, are kept as analytical information on various business functions.

421 Administrative Expenses. The accounts under this heading are primarily for the purpose of getting at the necessary expense of administration of the general business affairs. Sufficient
detail accounts should be provided to truly analyze this activity. For example, Legal Expense would be charged with the cost of lawsuits, real estate title investigations, legal assistance in connection with collections, etc.
422 Selling Expenses. Most of the accounts listed in this group are self-explanatory. The group should be restricted only to expenses truly related to sales activities. Since a few of them may offer certain difficulties, they are discussed in detail.
4222 Salesmen's Traveling Expenses. To this account should be debited not only the railroad fare of salesmen, but also any other expense they may incur while out on their routes, such as hotel bills, livery hire, bus fare, etc. Each business house is likely to have its own rules as to what shall constitute refundable expenses; some will repay the salesman for expenses incurred in entertaining customers, while others discourage the practice of entertaining by refusing to make reimbursement. Very often an individual account is kept with each salesman. If this is the practice, his account would be credited with his salary at the end of each month (Salesmen's Salary Account being debited) and with any commissions earned by him. The account is debited for all amounts withdrawn, as well as funds sent him for expenses. When he renders his report for expenses, his account is then credited (Traveling Expense being debited) for the amount spent. This credit would operate to cancel the debit for money advanced for expenses, and the account will show at all times the balance either due from or owed to such salesman.

4223 Delivery Expense. This account should be debited for all expense of delivering goods to local customers. It may include the cartage hire, as well as the cost of operating a regular delivery service. The expense of such service would be the wages of the drivers, repairs to equipment, stable expense (in case of horses), oil and gas (in case of auto trucks), and other similar items.
4224 Advertising. This account should be debited for the cost of space in newspapers and periodicals, the cost of catalogs, pamphlets, booklets, etc. If an advertising office is maintained, a special account should be provided for its expenses. It should be definitely. understood that donations, gifts, and contributions to charity should not be included in this account. A special account should be provided for all such items under the title "Donations and Subscriptions."
4225 Losses from Bad Debts. This account is debited with the amount of accounts receivable or notes receivable which are declared uncollectible. The theory for considering it
a selling expense is that the loss results from a failure to discriminate between a good risk and a bad risk in making a sale on credit. It is regarded as one of the inevitable results of doing business on credit, hence a cost of selling. As already pointed out earlier in this assignment, Loss from Bad Debts is often treated as a financial expense.
General Expenses. In general, the accounts classified under this title are related more or less to the business as a whole, and not to any specific division of management. For example, insurance, rent, taxes, and depreciation may apply to the general office, as well as to the sales and shipping departments. Part of such charges may even apply to a stable, garage, warehouse, etc. Due to the fact that an accurate distribution cannot be made, they are simply considered in a group by themselves as general expenses.

Even where a distribution is made to different departments, based on some method of proration, accounts are very often provided for such expenses, and the distribution made by journal entry, charging the various departments and crediting the general expense accounts.

## 5. Income Charges and Credits

This group provides for expenses and income, which are not truly operating expenses. All items of a financial nature, as well as miscellaneous profits and losses from outside sources would fall under this heading.

## MAIN POINTS OF THIS ASSIGNMENT

In this assignment, we have explained and illustrated the principle of the classification of accounts and the various methods in use. The principle of classification is used thruout all accounting work.

First: Recall the eight ways in which the principle of classification is used in accounting.
Second: Various methods of classifying accounts.

1. Original method-personal and impersonal.
2. More modern method-real and nominal.

The second method provides a detail record of the business progress.
Third: Real accounts are grouped into three classes, with additional subclassifications.

1. Assets

Current
Fixed
Deferred
2. Liabilities

Current
Fixed
Reserves
3. Proprietorship

Capital
Surplus
Fourth: Nominal accounts are grouped thus:

1. Trading Purchases Sales
2. Manufacturing
3. Operating Expenses

Selling
Administrative General
4. Income Charges and Credits Income Charges Income Credits

Fifth: Advantages of account classifications.

1. They aid in distinguishing between capital and reserve items.
2. They facilitate the preparation of accounting statements.
3. They provide subdivision in the records to meet the needs of an expanding business.

Sixth: Advantages of indexing and classifying accounts by numbers.

1. It aids in bringing accounts into natural sequence.
2. It saves time in recording entries in vouchers and journals.

Seventh: Importance of definite account titles. Mixed accounts to be avoided.
Eighth: Description of accounts, especially the debits and credits to be made in each account.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 25

1. Following the classification shown on pages 9-11, you are to examine the transactions given below and journalize them, using account numbers.

For example, the proper journal entry for the transaction of December 1, 1922, is as follows:

Dr. 125 Cr. 1111
Purniture and fixtures purchased and paid for by check

## TRANSACTIONS

Dec. 2 Auto trucks purchased and paid by check.
2 Gasoline bought on account.
4 Merchandise purchased from the Aetna Furniture Company on account.
4 Merchandise sold on account to Mr. L. W. Taylor.
5 Cash received and deposited, from Mr. F. C. Biddle, to apply on his account.
6 Gave promissory note to the Aetna Furniture Company.
7 Postage paid out of office funds.
8 Telephone rental paid by check.
9 Office salaries paid by checks.
9 Purchase of ink paid for out of office cash.
11 Addition to building on account.
12 Merchandise sold on account to F. W. Fault, terms 2/10-n/30.
13 Ten days later Mr. Fault pays his bill, cash deposited.
14 Interest paid out of office fund.
15 Two per cent purchase discount taken advantage of in paying bill to Northwestern Stove Company.
2. Make in proper form a classification of accounts from the following list. This classification should follow, in general, the classification shown in the assignment, pages 9-11. New number combinations should be used when necessary, but the general plan of account numbers already described should be carefully followed.

## NAMES OF ACCOUNTS

Accounts Payable
Accounts Receivable
Accrued Interest Payable
Advertising Expenses
Bonded Debt
Capital Investment
Cash in Bank
Cash in Office
Furniture and Fixtures
Hay and Grain Used
Horses, Wagons, and Harness
Horseshoeing Expenses
Insurance (Expense)
Interest (Expense)
Land

Machinery
Miscellaneous Stable Expenses
Notes Payable
Office Building
Office Expenses
Office Salaries
Postage
Prepaid Insurance (Unexpired)
Phepaid Water Rent (Unused Portion)
Printing and Stationery (General) Printing Cataogs and Price Lists Purchases
Salesmen's Commissions

Salesmen's Salaries
Sales Office Expenses
Sales
Side Track and Track Scales
Store Building
Taxes (Expense)

Teamsters' Salaries
Telephone and Telegraph
Traveling Expenses-Salesmen
Wagon and Harness Repairs
Warehouse A
Warehouse B
3. From the following trial balance prepare:
(a) A complete classification of accounts with numbers.
(b) The profit and loss statement.


The inventory of merchandise on hand, December 31, 1922, was $\$ 27$,018.18. Unexpired insurance on December 31 amounted to $\$ 160.00$. You learn that interest on the "loan payable" has only been paid up to October 1, 1922. You also find that interest has accrued as follows:

```
Notes Payable
$ 10.30
Notes Receivable . . . . . . . . . . . . . . . . . . . . . . . . }57.6
Mortgage Payable
    200.00
```

You learn also that the company was incorporated and began business January 1, 1921, and that the item of "Taxes" appearing on the trial balance represents taxes for the year 1921, which should have been taken into account that year. It is estimated that the taxes for 1922 will be $\$ 200.00$. The estimated loss on Accounts Receivable is $\$ 651.42$. You learn that no depreciation was booked during 1921 and you are told that the correcting entries may be made on the following basis:

## ESTIMATED DEPRECIATION

```
Store Property . . . . . . . . . . . . . . . . . . . . . . . . $2,000.00
Store Fixtures . . . . . . . . . . . . . . . . . . . . . . . . 1,050.00
Horses and Wagons
    500.00
```

The same figures for depreciation may also be used for 1922.
You are asked to send in the following as your solutions for problems 1,2 , and 3:

1. Journal entries for transactions.
2. Classification of accounts.
3. (a) Classification of accounts.
(b) Profit and loss statement.

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 26 <br> SINGLE ENTRY

IN directing the affairs of this corporation, I am constantly depending upon the rudimentary lessons I learned in the days when I was an Accountant. I consider a good working knowledge of accountancy essential to efficient executive administration, for no man can safely and wisely direct the affairs of his company without a close and intimate knowledge of its expenditures, and their bearing on its financial position and profit and loss.
A. R. ERSKINE

President, Studebaker Corporation

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations--Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

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## SINGLE ENTRY BOOKKEEPING

In your study thus far you have been dealing with what is called the "double entry" system of keeping books. Our entire attention has been given to this method, because it is the basis of all modern accounting and is generally recommended by most accountants.

Double entry, however, has not yet been universally adopted. If you were to investigate the situation in any community, you would find many businesses still using some form of single entry.

Single entry is especially applicable to professional firms, hotels, clubs, societies, etc., as well as in the small retail business, where the proprietor is in daily touch with his business affairs. Such concerns are not interested in analyzing profits and losses to the extent demanded by the managers of the larger organizations. Consequently, single entry, which is fully adequate for all practical purposes in such instances, is the natural method to use.

Single Entry, a Record of Personal Transactions. What is known in accounting as pure single entry is limited to a record of transactions affecting personal accounts. Its primary purpose is a protection against forgetfulness as to what customers owe the business and what the business owes its creditors. Individual accounts will be kept with all customers and creditors, the charges and credits being made first to a day book, and posted from there to the personal account. Under modern business conditions, however, it is very often found that the entries are made direct to the account from charge tickets and credit memoranda.

The essential features of single entry in its simplest form, therefore, may be stated thus:

1. It records only the transactions that affect personal accounts.
2. It does not for this reason furnish any of the information kept in nominal and property accounts.
From this it is evident that single entry does not record the twofold effect of every transaction. When Mr. Smith buys $\$ 100.00$ worth of goods on account, the amount will simply be charged to Mr. Smith's account. The twofold entry debiting Mr. Smith as an account receivable, and crediting Sales, would not be made, as would be done if double entry were used. Consequently, the correctness of the ledger cannot be tested by means of a trial balance. This fact that only one side of a transaction is recorded has given rise to the term "single entry," as distinguished from double entry.

Since single entry does not make use of nominal accounts, there are no records for setting up the regular profit and loss statement. Consequently, in order to determine the net profit under the single-entry system, it is necessary to compare the capital or net worth at the end of the period with the capital at the beginning. This method is fully explained and illustrated in the problems given in this assignment.

Why Accountants Should Be Familiar with Single Entry. As has already been stated, single entry is still to be found in many businesses, especially small concerns and old established firms which are slow to adopt more modern methods of business. For this reason the accountant should understand the operation of a single-entry set of books and how to prepare statements from it. He may never keep accounts by single entry himself, but he may often be called upon in connection with certain problems, either in auditing or investigations, to deal with records kept by single entry.

It is important, therefore, that the accountant be familiar with single entry, not so much for bookkeeping purposes, as that he will be able to render the greatest amount of accounting service.

Moreover the accountant is occasionally asked to change a set of singleentry books to double entry. In such cases he is expected to open the new books correctly and properly close the old ones. This he cannot do unless he is thoroly familiar with the special features of the single-entry method.

Single Entry Illustrated. In the following problem the main features of the simplest kind of single entry are explained in detail. The features are discussed under these headings:

1. How the transactions are recorded.
2. How the correctness of postings is proved.
3. Preparing the financial statement.
4. Method of calculating net profit.
5. Difference between net profit and net increase in capital.

The case to be used for illustration is that of L. E. Osborn, who opened a grocery store on May 1, 1922, with the investment of $\$ 3,000.00$ cash. He deposited the cash in the bank, and made all disbursements by checks.

On May 1 he purchased on account from the General Stationery Company, a day book and a ledger for $\$ 8.50$. No cash book has been used, but his check stubs show his deposits and payments, being balanced as each check is issued. The day book and ledger has been used to keep a record of what customers owe him and what he owes to creditors. His system is, therefore, that of pure single entry.

The following list of transactions shows his business for the month :
May 1. Paid $\$ 50.00$ for month's rent.
2. Bought store furniture for $\$ 500.00$ cash.
3. Bought merchandise of W. E. Somers on account, $\$ 1,530.00$.
4. Bought a delivery truck for cash, $\$ 1,200.00$.
6. Paid $\$ 30.00$ for advertising.
8. Sold merchandise to Joseph Small on account, $\$ 360.00$.
8. Took merchandise home for personal use, $\$ 12.00$.
8. Received $\$ 450.00$ from cash sales.
10. Bought merchandise from Myers Bros. on account, $\$ 850.00$.
12. Bought merchandise for cash, $\$ 15.00$.
15. Paid $\$ 45.00$ cash for wages of clerk.
16. Sold merchandise for cash, $\$ 120.00$.
18. Withdrew cash $\$ 25.00$ for personal use.
20. Sold merchandise to M. E. Payne on account, $\$ 440.00$.
20. Gave promissory note to W. E. Somers on account, $\$ 200.00$.
22. Paid $\$ 150.00$ cash to W. E. Somers on account.
25. Paid $\$ 130.00$ cash to Myers Bros. on account.
27. Received $\$ 250.00$ from M. E. Payne on account.
30. Took merchandise home for personal use, $\$ 18.00$.
30. Paid $\$ 45.00$ cash for wages of clerk.
30. Paid $\$ 8.50$ on account with General Stationery Company.

SINGLE-ENTRY JOURNAL


Figure 1.-Notice especially that only one entry is made for each transaction. Cash received from sales and cash paid out for purchases and expenses are not entered, because they do not affect personal accounts. There is, of course, a record on the check stubs of cash deposited and checks drawn, which serves in general the purpose of a cash book.

Assignment 26, Page 3

It should be pointed out here that sales are larger to each customer than would be expected in a retail store, and that only a few transactions are given. There would, of course, be many daily sales, but they have been grouped under a few names for economy of space.

On May 31 he took an inventory of his merchandise, fixtures, and equipment as follows:

| Merchandise | . $\$ 1,420.00$ |
| :---: | :---: |
| Fixtures | 495.00 |
| Delivery Truck | 1,180.00 |

1. How the Transactions Are Recorded. From the above transactions only those that affect the accounts of his customers and creditors will be recorded in the single-entry journal or day book as illustrated in Figure 1.

It will be noted that the first column is used for charges to personal accounts, and the second column for credits. This is a more systematic use of the journal than is sometimes found, where the journal is a memorandum record only. Since the two-column book is somewhat common to-day, however, it is used properly in this illustration, and calls merely for a classification of charges and credits to accounts with persons.

The entries made in the single-entry journal are posted to the ledger currently during the month of May. On May 31, therefore, the ledger appears as in Figure 2.

## LEDGER ACCOUNTS

## L. E. Osborn, Capital



General Stationery Company

W. E. Somers

| 1922  <br> May 20 <br>  22 | Note on account Cash | 200 200 | 1922 ${ }^{\text {May }}$ | 3 | Merchandise on account | 1,530,00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Myers Bros.

|  | Cash on account | 130 | 00 | May | 10 | Merchandise on account | 85000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Joseph Small


Figure 2.-This ledger enables Mr. Osborn to tell at any time how much each customer owes him, and how much he owes each creditor. His own account shows the capital invested and the charges against it from time to time. From it he determines his net claim on the business.
2. How the Correciness of Postings Is Proved. In looking over the ledger accounts in Figure 2, you will see that if you take a trial balance, as is ordinarily done in double entry, the ledger will not balance. This is due to the fact, as already explained, that only one entry is made for each transaction. We must have another method of proving the postings.

This other method is called "proof of posting." By this we mean that the total of all the debits in the journal will equal the total of all the debits in the ledger. If these two totals fail to agree, then some amount has either not been posted or has been posted incorrectly. In the same manner the total of the credits in the journal is compared with the total of the credits in the ledger. The proof of posting for the illustration we are considering is shown in Figure 3.

## TEST FOR PROOF OF POSTING



Figure 3.-The totals for the journal are taken from Figure 1. As you will note, these totals agree with the total debits and credits in the ledger, which proves that the postings were correctly made.
3. Preparing the Financial Statement. There always comes a time in every business undertaking when the management wants to know what its present worth is, and whether it has made a profit. Altho he had been in business but one month, Mr. Osborn wished to know his present worth on May 31, 1922.

When the single-entry system is used the present worth is determined by preparing a list of all the assets and liabilities. The total liabilities are then subtracted from the total assets, giving a result which represents the net worth. When these facts are properly arranged the statement is called a "financial statement," which in appearance is very much like the regular balance sheet. The method of preparing the single-entry statement, however, is quite different. Under double entry a trial balance is first taken, and then the balance sheet is set up from it. This cannot be done under single entry, since the ledger does not contain all the facts.

The cash balance, for example, is not shown in a separate account in the ledger. The cash as of May 31, therefore, must be listed from the check book. Any cash still undeposited in the store or in the office must be counted and added to the check-book balance. The amount of merchandise on hand is obtained by taking an inventory. The store fixtures and other equipment are listed and revalued. Allowance is made for proper depreciation, and the net amounts listed in the financial statement. In making such an appraisal, the judgment of the proprietor is, of course, depended upon.

The amounts for Accounts Receivable and Accounts Payable are obtained by totaling the customers' and creditors' accounts, respectively. The amount for Notes Receivable is determined by listing the actual notes on hand. The Notes Payable amount is taken from a notes payable register or other memorandums which show such information. It may be that the memory of the proprietor, or reference at the bank, etc., will have to be depended on entirely.

This procedure of preparing the single-entry financial statement is usually called the "inventory method." It involves in some cases a considerable amount of searching for facts in order that all assets and liabilities be included. The financial statement of Mr. Osborn for May 31, as given in Figure 4, was prepared by this method.


Figure 4.-Look over the transactions of Mr. Osborn and see how the asset and liability amounts are determined. For example, how is the cash balance of $\$ 1,621.50$ obtained? Account for each of the other amounts by a similar analysis of the transactions. In this way you will come to understand fully what is meant by the inventory method of preparing the financial statement under single entry.
4. Method of Calculating Net Profit. Now that we have determined the capital of Mr. Osborn on May 31, 1922, we can very easily calculate the
net profit for May. Since his capital on May 31 is larger than it was on May 1, the difference will represent the net income for the period. This may be calculated in two ways, as illustrated in Figures 5 and 6.

| $\begin{gathered} \text { L. E. Osborn } \\ \text { CALCULATION OF NET PROFIT, for May, } 1922 \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Calculation of Net Profit-Method 1
Figure 5.-Notice that the charges to Mr. Osborn's personal account are deducted from his capital at the beginning of the period to arrive at his net investment. This is then subtracted from his net worth May 31, which gives the net increase in capital for the period. It should be emphasized in this connection that these charges are not expenses. They are direct charges against capital.


Calculation of Net Profit-Method 2
Figure 6.-This method of figuring the net profit differs from that shown in Figure 5 only in the way of handling charges against the proprietor. It illustrates more clearly the distinction between the net increase in capital and the net profit.

After obtaining the net profit of $\$ 221.50$, the amount is credited to L. E. Osborn's Capital Account.
5. Difference Between Net Profit and Net Increase in Capital. The above calculation of profits shows a net profit for the month amounting to $\$ 221.50$, while the net increase in capital has been only $\$ 166.50$. The difference, of $\$ 55.00$, is the total charges against the proprietor, which altho they decrease capital, are not expenses for the period. This distinction should be clearly fixed in your mind.

The expression "increase in capital," means an increase in the claim of the proprietor against the net assets, regardless of how this increase came about. It may have resulted from the operations of the business, or it may come from some purely personal transactions entirely outside the scope of the business. For instance, if the proprietor receives a legacy of $\$ 1,000.00$ and immediately turns it over to the business, such addition of cash increases his capital but it cannot be considered as a profit. Similarly, if the proprietor withdraws cash for some personal purpose, such as $\$ 200.00$
for a pleasure trip for his family, he reduces his claim against the assets but he does not reduce his profits from the business. It would not be fair to his managerial ability to call such a decrease in capital a loss or expense of the business.

Likewise, when merchandise is withdrawn for the proprietor's own use, it should be charged to him and considered a reduction in capital. Otherwise it merely tends to decrease his inventory and add to the cost of doing business, and is a business loss. For this reason all withdrawals of cash or other personal charges to the proprietor are added to the net increase of capital to determine the actual net profit from operations.

This distinction between net increase in capital and net profit may be expressed in the following equation:


From this discussion it is clear that, if property is added or withdrawn thru transactions other than those resulting from business operations, it must be either a subtraction from or an addition to the increase in capital in calculating net profit.

When the capital at the close of the period is less than at the beginning, it means a decrease of capital, but this does not necessarily mean a loss from business dealings. It may be that operations resulted in a profit, but that the proprietor had withdrawn enough property to more than offset the earnings for the period.

## VARIOUS METHODS OF KEEPING SINGLE-ENTRY BOOKS

In its practical application, single entry is seldom found in the precise form, as used by Mr. Osborn. This simple system of day book and ledger containing personal accounts is very frequently extended and elaborated. Sometimes a summary of sales, and certain expense analyses, are kept as merely memoranda records. In some instances one may even find accounts or records with the more important classes of property. The most common extension is the use by some proprietors of a regular cash book in addition to the journal. The cash book makes possible two things:

1. It provides a safeguard on cash. The Cash Account and bank balance can then be verified by the record in the cash book.
2. It gives a basis for analyzing expenses and income in the preparation of a profit and loss statement from single-entry books. Such an analysis is especially important in rendering an income-tax return.
When a cash book is used, postings for collections from customers and for remittances to creditors should be made from it. This relieves the day book or journal of such entries. A cash look, suitable for the business of Mr. Osborn, is illustrated in Figure 7.

CASH BOOK


Figure 7.--rinis simple cash book would be adequate for a single-entry system. The entries that are to be posted are placed in the columns headed Customers ${ }^{\text {c }}$ Credit and Creditors' Debit. Observe how an analysis of expenses and income can be made for the profit and loss statement, as shown in Figure 8.

| L. E. Osborn <br> PROFIT AND LOSS STATEMENT for May, 1922 |  | . $\$ 1,370.00$ |
| :---: | :---: | :---: |
| Cost of Goods Sold : . . . . . . . . . . . . . . . . . ${ }^{\text {S }}$, 10.00 |  |  |
|  |  |  |  |
| Purchases . . . . . . . . . . . . . . . . . . . . . . . $\$ 2,395.00$ |  |  |
| Less Wi thdrawal | 30. |  |
| Less Inventory, May 31 | \$2,365.00 |  |
|  | 1,420.00 |  |
| Cost of Goods Sold | . . . | 945.00 |
| Gross Profit |  | 425.00 |
| Operating Expenses: |  |  |
| Wages : | \$ 90.00 |  |
| Advertising | 30. |  |
| Depreciation of Furniture | 5.0 |  |
| Depreciation of Delivery Equipment | 20.0 |  |
| Rent . . . | 50.0 |  |
| Books of Account | 8.5 | 203.50 |
| Net Profit |  | 221.50 |

## Profit and Loss Statement

Figure 8.-This statement is very similar to the regular profit and loss statement obtained from a trial balance. You will note how certain of the facts come directly from the cash book. The sales and purchases are arrived at by the method explained in the discussion.

A Profit and Loss Statement Under Single Entry. The accountant is frequently called upon to prepare a profit and loss statement from singleentry books. Especially is this necessary when income-tax returns must be prepared. When a cash book is used, the profit and loss statement can be set up partly from the cash book. If it is not used, check stubs are used, along with other memorandums, receipts, etc.

In the case of Mr. Osborn's business, the profit and loss statement would appear as in Figure 8.

The problem of determining the amounts of sales and purchases from a single-entry set of books is accomplished by working backward from the amounts due from customers and the amounts owed to creditors. The following method shows how this is done.

| Calculation of Purchases from Creditors' Accounts: Amount Owed to trade creditors, end of period: |  |
| :---: | :---: |
|  |  |
|  |  |
| By Note Payable | 200.00 |
| Total | 2,100.00 |
| Add Cash Payments to Creditors during period. | 280.00 |
| Cash Purchases during period | 15.00 |
| Total | 2,395.00 |
| Deduct Amount Owed, beginning of period | None |
| Total Purchases for period | \$2,395.00 |
| Calculation of Sales from Customers' Accounts: |  |
| Amount due from customers, on open account, end of period . . . . . . . . . \$ 550.00 |  |
| Add Collections from Customers during period . . . . . . . . . . . . . . . . ${ }^{25000}$ |  |
| Cash Sales during period | 570.00 |
| DeductTotal Amount Outstanding, beginning of period . . . . . . . . . . . . . $\$ 1,370.00$ <br> . |  |
|  |  |
| Total Sales for period | \$1,370.00 |

Note especially in the above calculations that there were no balances at the beginning of the period. This is due to the fact that Mr. Osborn began business on May 1, the beginning date of the period. In the calculation of sales, notes receivable are not considered in this case, because no notes were received from customers on account.

Single Entry Compared with Double Entry. Now that you are familiar with the single-entry system, both in its simple and modified forms, you are in a position to consider its merits and disadvantages when compared with double entry.

The chief merit for single entry is that it reduces the bookkeeping work to a minimum. This is, of course, desirable in small businesses, where the proprietor is very often his own bookkeeper; at least his own manager.

As the volume of business grows and certain duties are delegated to assistants, however, good management requires a more accurate check on operations. The manager needs a better analysis of expenses, a calculation
of turnover, and greater control of every phase of the business. Single entry is then found wanting, because:

1. It does not provide an adequate check on purchases and sales.
2. It does not control sufficiently the accuracy of information.
3. It does not furnish without special analysis complete financial reports.

Double entry, on the other hand, does meet these necessary requirements. That is why business houses are gradually adopting the double entry method. This often means a change from single to double entry and an accountant is usually called in to make the change.

Changing from Single Entry to Double Entry. The task of changing a single-entry set of books to double entry may mean one of two things. The change may be made as of a given date, in which case new books are opened on the double-entry plan. In this case no attempt is made to change any part of the entries of the preceding period.

Sometimes the change includes recording in the old books the information which was omitted under the single-entry system. This procedure necessitates the rewriting to a certain extent of past records and the creating of nominal and property accounts in the ledger.

Both of these methods are illustrated and explained on the following pages.

Method One. Change the books of L. E. Osborn from single to double entry, beginning June 1, 1922.

The procedure in this case is simple. An entry is made opening the double-entry set of books with the financial statement as of that date. If the same ledger formerly used for single entry is to be continued, the opening entry must be made so as to place on the ledger only the new accounts.

The entry for changing the books of Mr. Osborn would be as follows:
JOURNAL


Since the accounts of Joseph Small, M. E. Payne, W. E. Somers, Myers Bros., and L. E. Osborn, Capital, are already contained in the ledger, these items are checked in the folio column, so that they will not be posted again. After posting the other items, the ledger would be in balance. It is then ready to receive entries from the regular books of original entry in the same way, as if the books had always been kept by double entry.

If the old ledger is not to be continued, the complete entry would, of course, be posted to a new ledger. The old ledger would then be closed by ruling off the balances transferred to the new ledger.

Method Two. Change the books of L. E. Osborn from single entry to double entry from May 1, 1922.

This problem is slightly longer than the preceding one, but involves no very difficult principles. It requires the building up of the necessary property and nominal accounts in the ledger that have not been used under the single-entry system.

The procedure is given below:

1. Post totals of cash book to Cash Account: Receipts (Debited) $\$ 3,820.00$; Disbursements (Credited) $\$ 2,198.50$.
2. From the cash disbursements side of the cash book debit the following: Rent Account, $\$ 50.00$; Furniture and Fixture Account, $\$ 500.00$; Delivery Equipment Account, $\$ 1,200.00$; Advertising Expense Account, $\$ 30.00$; Purchases Account, $\$ 15.00$; Clerk's Wages, $\$ 90.00$.
3. From the cash receipts side of the cash book credit the following: Sales Account, \$570.00.
4. From the accounts with customers and creditors, already in use, information is summarized and posted as follows: Debits: Purchases, $\$ 2,395.00$; Office Supplies, $\$ 8.50$; Credits: Sales, $\$ 1,370.00$; Purchases, $\$ 30.00$; Notes Payable, $\$ 200.00$.
5. Make a journal entry for depreciation of $\$ 5.00$ on Fixtures, and $\$ 20.00$ on Delivery Equipment. Debit: Depreciation, \$25.00; Credit: Reserve for Depreciation, $\$ 25.00$.

A trial balance can then be taken of the ledger and a profit and loss statement prepared which would agree with the one shown in Figure 8.

It would be well to set up the solution for the above problem in order that you may fully understand how to proceed. You are not required, however, to send in your solution.

## MAIN POINTS IN THIS ASSIGNMENT

In this assignment you have become familiar with the main features of the single-entry method. The following summary will enable you to make a brief review of its essential principles.

First: Note the chief differences between the two methods.

Single Entry

1. Only transactions involving personal accounts are recorded showing debit or credit.
2. Information obtained is restricted since no nominal or property accounts are used.
3. Accounts are kept only with customers, creditors, and the proprietor.
4. Proof of posting used to verify the debits and credits in single entry ledger.
5. Financial statement must be constructed from inventories.
6. Profits from operations are determined by a comparison of beginning and ending net worth.

## Double Entry

1. Every transaction is recorded showing both debit and credit elements.
2. Information is obtained in detail, since all real and nominal accounts are used.
3. Accounts are kept with all values, including property, operations, and personal claims.
4. Trial balance used to verify the debits and credits in double entry ledger.
5. Financial statement is an actual balance sheet of the ledger after being properly adjusted and closed.
6. Profits from operations can be proved by a statement of profit and loss, giving the causes for increase or decrease in net worth.

Second: Recall the illustrative problems.

1. The first problem explained the operation of single entry. The steps shown were:
(a) How transactions are recorded.
(b) How postings are proved.
(c) How financial statement is prepared.
(d) How profit for the period is calculated.
2. The second problem explained how to change from single entry to double entry:
(a) When the books are changed, as of a given date.
(b) When the double-entry record is built up from some previous date.
A journal entry is necessary to open the double-entry ledger. This entry is made from the financial statement. Only those accounts which are not already in the ledger are set up if the old ledger is continued.
Third: A clear distinction was made between net increase in capital and net profit.
Net Increase in capital is determined by deducting the capital at the beginning from the capital at the end.
Net Profit is determined by subtracting additions and adding withdrawals of the proprietor to the increase in capital.
Fourth: Various forms of single entry.
3. Simplest form-a day book or single-entry journal is the only book of original entry.
4. Modified form-a cash book and journal and sometimes other memoranda records are kept in addition to the day book.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 26

The following problems are typical of actual situations calling for a thoro understanding of the principles of single entry. In this solution you will apply the methods which have been illustrated in the assignment. Prepare your work in accordance with the principles explained.

1. R. M. Carrier is the owner of a small retail jewelry store. He operates the store himself with the assistance of two clerks and keeps his records by single entry. On December 31, 1922, he prepared a statement of his financial condition and found that his net worth was $\$ 8,700.00$. He compared this with his net worth, as shown by his financial statement of December 31, 1921. This comparison showed that his capital had increased \$1,500.00.

His personal account showed that during the year the following withdrawals and additions had been made:

> April 6.-Withdrawal of $\$ 175.00$
> April 29.-Withdrawal of $\$ 251.00$
> July 24.-Additional investment of $\$ 500.00$
> Oct. 5.-Withdrawal of $\$ 65.00$
> Nov. 30.-Withdrawal of $\$ 100.00$
> Dec. 15.-Withdrawal of $\$ 68.00$

Calculate and show in statement form Mr. Carrier's net profit for the year ended December 31, 1922.
2. Elmer Deakin keeps his books by single entry, but in addition uses a cash book in order to safeguard his cash. His transactions for January, 1922, are as follows:
Jan.1, Following were the assets at the beginning of business to-day: Cash on hand $\$ 2,000.00$, store and lot valued at $\$ 4,000.00$, George Wilson's note, dated December 10,1921 , for 60 days, $\$ 500.00$. (Disregard accrued interest.)
2, Paid $\$ 260.00$ for office furniture.
2, Bought of W. R. Story for cash, merchandise $\$ 560.00$.
2, Paid A. R. Deneen cash for sundry repairs, $\$ 50.00$.
4, Sold Edmund White, for cash, merchandise, $\$ 320.00$.
5 , Bought of James Selden, on account, merchandise, $\$ 850.00$.
5, Paid J. D. Russell cash for office stationery, $\$ 12.25$.
9, Discounted George Wilson's note at 6 per cent, and received cash for the proceeds.
12, Sold Howard Stetson, on account, merchandise, $\$ 212.00$.
12 , Gave James Selden a check for $\$ 425.00$.
15 , Wages for clerk, paid in cash, $\$ 30.00$.
21, Received a 30 -day note from Howard Stetson, $\$ 212.00$.
25 , Gave James Selden a 60 -day note for $\$ 425.00$.
26, Paid Phil Glover $\$ 560.00$ for an auto delivery truck.
27 , Took merchandise home valued at $\$ 30.00$ cost price.
30 , Took $\$ 50.00$ cash for personal use.
30 , Wages of clerk, paid in cash, $\$ 30.00$.
31 , Merchandise on hand valued at $\$ 1,200.00$, furniture and fixtures valued at $\$ 240.00$. Other assets have not depreciated.
(a) Record the necessary transactions in a cash book and journal.
(b) Post all personal accounts.
(c) Set up a proof of posting.
(d) Prepare a financial statement.
(e) Prepare a statement showing the calculation of net profit for the month.
3. John Smith, who has been in business for one year as a merchant, has kept his accounts by single entry. On December 31, 1922, you are asked to open a double-entry set of books for him. His records show the following facts:

| John Smith (original investment) credit balance | $\$ 5,000.00$ |
| :--- | ---: |
| Accounts Receivable listed | $2,000.00$ |
| Accounts Payable listed | $2,500.00$ |

He also submits the following inventory, which is accepted as accurate:


You are asked to show in correct form the compound journal entry which would change John Smith's books from single to double entry. The personal account items, as you will notice, are already listed in the ledger, but in order to have a complete journal entry they should be shown in the opening entry also.
4. Frank Zeller owns and operates a store. He has kept his books according to the single-entry method. You are given the following list of accounts. Accounts Receivable, Accounts Payable, and Capital are already in the ledger.


A summary of the cash book for the year shows:

```
Receipts:
    From Customers . . . . . . . . . . . . . . . . . . . . . . $38,000.00
    Capital Paid in (additional) . . . . . . . . . . . . . . 5,500.00
Disbursements:
    Accounts Payable . . . . . . . . . . . . . . . . 29,525.00
    Administration Expense. . . . . . . . . . . . . . . . 2,000.00
    Selling Expense. . . . . . . . . . . . . . . . 2,500.00
    Delivery Expense . . . . . . . . . . . . . . . . . . . . }500.0
    Wages . . . . . . . . . . . . . . . . . . . 2,790.00
    Proprietor's Withdrawals. . . . . . . . . . . . . . . . . 1,500.00
```

Set up the following depreciation:
2 per cent Depreciation on Buildings
5 per cent Depreciation on Furniture and Fixtures
5 per cent for Bad Debts Reserve (based on Accounts Receivable balance, Dec. 31, 1922)
From the above facts you are to prepare:
(a) The necessary entries to bring all facts into the ledger.
(b) A trial balance at December 31, 1922, before closing.
(c) A profit and loss statement.
(d) A balance sheet.

From the cash book summary you will determine the nominal accounts, and the cash balance at December 31, taking into consideration the condition of the Cash Account at January 1. Calculate purchases and sales as explained in the assignment.

You are asked to send in solutions for all the above problems for criticism and grading.

# Higher Accountancy 

PRINCIPLES<br>PRACTICE and<br>PROCEDURE

## Elements of Accounting Practice

## Assignment 27 <br> ACCOUNTING FOR NON-TRADING CONCERNS

> RUSINESS is being done more and more on a scientific basis. The business man who is not in possession of all the facts relating to his business at all times, stands very little chance of being successful. In most businesses it is the accounting department which is relied upon to furnish these facts.

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## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## ACCOUNTING PROCEDURE FOR NONTRADING CONCERNS

If you were to classify the business houses of your own community, you would find that most of them are engaged in one of the following activities:

1. Merchandising-that is, they buy and sell merchandise.
2. Manufacturing-that is, they make and sell some commodity.

The accounting procedure for both these types of business has been explained in the preceding assignments.

While merchandising and manufacturing enterprises differ from each other in certain respects, nevertheless, they have one thing in common, that is, they both sell some material commodity for profit.

Opposed to these two types of business activity is the business or institution that does not sell commodities. Such businesses are usually referred to as nontrading concerns.

Nontrading Concerns Sell Services. Nontrading concerns differ from all other types of business in that they render services instead of selling commodities. Take, for example, the business of professional men. Lawyers, doctors, dentists, architects, engineers, and accountants sell their services. Their income is not obtained from the sale of material commodities, but from the performance of some service for their clients. Concerns that might also be mentioned as illustrations of nontrading businesses are public utilities, commercial agencies, financial houses, educational institutions, fraternal organizations, trade associations, religious societies, etc. Such organizations are engaged in rendering some service.

Two Kinds of Nontrading Concerns. All nontrading concerns are not alike, however, except in the fact that they are intended to sell or render service. They should be further divided, according to their main purpose and method of operation, as follows:

1. Concerns that are conducted for profit.
2. Concerns that are not conducted for profit.

To bring out this distinction more clearly, nontrading concerns are classified into two groups, as follows:

## FOR PROFIT

Professional
Lawyers
Doctors
Dentists
Architects
Engineers
Accountants
Public Service
Telephone
Street Railways
Gas and Electric Companies
Commercial Organizations
Advertising Agencies
Detective Agencies
Employment Agencies
Hotels
Financial
Banks
Brokers
Insurance Companies
Investment Houses
Building and Loan Associations
Educational
Business Colleges
Private Schools
All these concerns require good accounting procedure. In some cases the records will be much simpler than in others, depending, of course, upon the nature of the operations. The accountant is expected to provide appropriate records for the nontrading concerns with as great care as he would for trading or manufacturing concerns. Moreover, members of clubs, churches, societies, and other institutions, who are in charge of the records, are interested in being able to provide accurate accounts for their organizations, so that good management can be obtained.

Special treatment of such nontrading concerns as banks, insurance companies, building and loan associations, railroads, and other public utility concerns cannot be given at this time. Such businesses are subject to supervision, and their accounts are usually made to comply with the regulations of some state or federal administrative body.

Generally speaking, accounts, transactions, books, and statements employed in trading concerns are also used in nontrading concerns. Moreover, nontrading businesses apply many of the accounting principles that are applicable to trading concerns.

Special Accounting Features in Nontrading Concerns. There are a few ways, however, in which the accounting procedure of a nontrading concern
differs from that of a trading concern. These differences are caused largely by the difference in the character of the transactions, the purpose of the organization, and the nature of the ownership. The accountant, in dealing with the accounts of a nontrading concern, follows the same plan as in any other statistical investigation in so far as the collection, summarization, and interpretation of results are concerned. He bears in mind, however, that in the statements prepared, the objects of the organization are different and the owners look for a different type of interpretation than in a trading concern.

More specifically, you will find that the treatment of the ordinary asset and liability accounts is the same under either type; also, that the same rules govern the debiting and crediting of the ordinary nominal accounts. This statement might lead you to conclude that the only difference in the accounts appears in the Capital or Ownership Account. It is true that a fundamental difference does exist in the Capital Account of concerns not conducted for profit, but there is a difference also in the nominal accounts used. The nontrading conicerns have no Sales Account, and no accounts that ordinarily appear in the trading section of a profit and loss and income statement, such as Purchases of Merchandise, Freight, Inventory, Cartage, etc. In place of the Sales Account, the professional firm has a Fees Account, the charitable institution a Donation, Legacy, or similar account, the educational institution, a Tuition Account, or Income Appropriation, and the club, a Dues Account.

## ACCOUNTING PROCEDURE FOR NONTRADING CONCERNS OPERATING FOR PROFIT

In considering the accounting procedure for nontrading concerns that operate for profit, special attention should be given to the books that are used and to the classification of the accounts in the ledger of certain typical cases. The books of such businesses usually consist of the following:

Journal-for noncash transactions.
Cash book-for cash transactions.
Ledger.
Clients, guests, or membership ledger-corresponding to a customers' ledger in a trading concern.

Classified time book-from which postings are made to the debit of clients' accounts.

A time book need not form the basis for charging the fee, since the record of time spent is usually statistical in nature. The charge to the clients' account will then be made in a lump sum thru the journal.

Classification of Accounts Used by a Firm of Lawyers. You can get a good idea of what accounts are used in a professional business from the following list of accounts now used by a leading firm of lawyers. It must be remembered, however, that this list is merely typical, and that the accounts of other firms would probably be somewhat different.
Assets:
Cash
Petty Cash
Accounts Receivable
Office Furniture
Library
Leasehold
Liabilities:
Accounts Payable
Notes Payable
Reserve for Depreciation
Proprietary Accounts:
Capital Account for each partner
Drawing Account for each partner
Tncome:
Professional Fees
Commissions on Collections
Expense:
Office Salaries
Office Supplies
Postage
Telephone and Telegrams
Periodicals
Traveling Expenses
Rent
Taxes
Depreciation
Loss on Bad Debts

Financial Statements of a Professional Firm. The financial statements of a professional firm are prepared in accordance with the same principles as for trading concerns. There are, of course, no inventories of merchandise to consider, but there are often accrued or deferred items that require adjustment. When a big engagement or undertaking is only partly completed at the time of preparing the annual statements, the question sometimes arises as to how much of the income and expense connected with such service shall be shown in the accounts of the current year.

This may be settled for each individual case, depending on the nature of the work and the terms of the contract. In general, the conservative policy should be followed of setting up, as an income of the period, only so much as fairly represents the proportion of the whole engagement completed at the date of the balance sheet. Usually, the completed work should also be approved as satisfactory. This implies that the accounts of the professional firm should be kept on the accrual basis, rather than on the cash basis, as is done in many cases.

In most nontrading concerns conducted for profit, it is necessary to prepare only the balance sheet and the profit and loss statement, as is required in a trading business. In some of the larger offices, it may be necesary also to furnish certain detailed schedules of items shown on the main statements.

A I'ypical Case. As a means of illustrating the preparation of statements for a professional firm, the following problem is presented and solved.

The trial balance of Jones \& Williams, attorneys at law, on December 31, 1921, after closing, was as follows:

| Jones \& Williams TRIAL BALANCE, DECEMBER 31, 1921 |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Notes Payable. |  | 4,000.00 |
| Jones, Capital. |  | $10,000.00$ $10,000.00$ |
|  | \$32,550.00 | \$32,550.00 |
|  |  |  |

During the year 1922, the following transactions were duly recorded on the books:

Charged clients with fees amounting to $\$ 50,000.00$. Incurred expenses thru Accounts Payable, as follows: Stationery, $\$ 1,000.00$; rent, $\$ 1,650.00$; miscellaneous, expense, $\$ 4,000.00$.

Received Cash: From clients on account, $\$ 60,100.00$; on account of notes receivable, September 1, $\$ 3,000.00$; on account of interest on notes receivable, $\$ 480.00$.

Paid Cash: Office Salaries, $\$ 3,500.00$; creditors, $\$ 12,000.00$; notes payable, $\$ 2,000.00$; interest on notes payable, $\$ 300.00$; Jones, Personal Account, $\$ 18,300.00$; Williams-Personal Account, $\$ 19,200.00$.

Adjustments: Six per cent interest on notes receivable from September 1, 1922, had accrued but was not entered on December 31, 1922. Six per cent interest on notes payable from September 1, 1922, had accrued but was not entered. Furniture was depreciated at the rate of 6 per cent a year, and a Reserve for Depreciation was set up on December 31, 1922. Reserve for Doubtful Accounts of $\$ 500.00$ was also created on December 31, 1922.

In solving this problem we shall prepare:

1. Working sheet for determining the trial balance on December 31, 1922.
2. Adjusting Entries for accruals and reserves.
3. Summary of cash receipts and disbursements of the year.
4. Statement of income and expenses.
5. Balance sheet as of December 31, 1922.


Figure 1.-In this comparative statement, note especially how the amounts in the Trial Balance, December 31, 1922, are determined.
2. The following journal entries will adjust the books for accrued interest, depreciation, and loss from bad debts:

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\begin{tabular}{|c|c|c|c|c|c|c|}
\hline DATE \& L. F. \& EXPLANATION \& DEBITS \& \& \multicolumn{2}{|l|}{CREDITS} \\
\hline \[
\begin{aligned}
\& 1922 \\
\& \text { Dec. }
\end{aligned} 31
\] \& \& \begin{tabular}{l}
Accrued Interest Receivable. \\
Interest Earned \\
To Record Accrued Interest on \(\$ 5,000.00\) at 6 Per Cent, September 1 to December 31. \\
Depreciation of Furniture. \\
Reserve for Depreciation. \\
To Set Up Annual Depreciation of Purniture at 6 Per Cent. \(\qquad\) \\
Loss from Bad Debts. \\
Reserve for Bad Debts \\
To Provide for Loss from Bad Debts. \\
Interest Expense Accrued Interest Payable. \\
To Record Accrued Interest on \(\$ 2,000.00\), Notes Payable at 6 Per Cent September 1 to December 31.
\end{tabular} \& 100
65

500

40 \& | 00 |
| :---: |
| 40 |
| 00 |
| 00 | \& 100

65

500
40 \& 00 <br>
\hline
\end{tabular}

Figure 2.-These adjusting entries are necessary in order to secure accurate and complete information in the statements.

4.
Jones \& Williams
STATEMRNT OF INCOME AND
FXPENSE
Yoar Ended December 31, 1922


Figure 3.-Both of these statements are set up from the Trial Balance in the working sheet of Figure 1, and the adjustments in Figure 2.
5.


Figure 4.-This balance sheet is set up from the last two columns of the working sheet and the adjusting entries.

Details of the Solution. The working sheet of Figure 1 shows the trial balance at the beginning of December 31, 1921, and the transactions for the current year, from which are derived the trial balance on December 31, 1922.

The expression "incurred expenses thru accounts payable" used in the problem simply means that expense accounts have been charged and Accounts Payable credited instead of Cash. Accounts Payable is, of course, debited when Cash is disbursed, or when cash is paid to creditors, as stated in the problem.

The accrued interest receivable, $\$ 100.00$, from September 1 to December 31 , is calculated for four months on $\$ 5,000.00$ at 6 per cent.

Of the $\$ 480.00$ received for interest during the year, $\$ 160.00$ canceled the accrued interest at the beginning of the year and left $\$ 320.00$ as income. To this is added the $\$ 100.00$ accrued from September 1 to December 31, 1922, which makes a total of $\$ 420.00$ as the income from interest for the year.

The accrued interest payable from September 1 to December 31 is calculated for four months on $\$ 2,000.00$ at 6 per cent. This $\$ 40.00$ accrual plus the interest paid, $\$ 300.00$, equals $\$ 340.00$, the total interest expense.

Fees earned cause a credit to the Fees Account, which corresponds to a Sales Account, and a debit to Accounts Receivable or clients' accounts.

## ACCOUNTING PROCEDURE FOR NONTRADING CONCERNS NOT OPERATING FOR PROFIT

Books and Accounts. The books of clubs, societies, associations, and various kinds of institutions generally consist of a general ledger, a cash book, and a journal; and usually there is also a voucher register or invoice register of some sort. In addition to these, various subsidiary records are kept as the nature of the organization demands.

For example, in a charitable institution receiving many donations, some of which are annual subscriptions pledged in advance, quite an elaborate card system of subscribers' or donors' accounts may be found. These correspond to a customers' ledger, and should represent at any time the balance of the unpaid pledges. They may be controlled by a Pledges Receivable Account on the general ledger, but are very often found merely as a memorandum record. The former method is, of course, the better from the accounting standpoint, but it is not generally used in practice since it involves the procedure of debiting Pledges Receivable and crediting an account called "Reserve for Subscriptions" at the time the pledges are signed.

Pledges which are uncollectible will be reversed by a charge against Reserve for Subscriptions, and the Pledges Receivable Account closed. As pledges are collected, Cash is debited and Pledges Receivable credited. A! the end of the year an adjusting entry is required for the total amount received from pledges, as follows:

Reserve for Subscriptions....................................
Contributions from Pledges \$.

The latter is a Revenue Account, going either into current income for the period, or into a Capital Increase Account. The cash-payments book of a charitable institution provides columns to classify expenditures as between administration and relief, and to show further the nature of the relief work.

## ACCOUNTS USED BY THE MIDWEST GOLF CLUB

The following accounts, used by a prominent golf club, are typical of what can be expected in a club of ordinary size. The following list is merely suggestive:

## ASSETS

Fixed:
Land and Buildings
Furniture and Fixtures
Equipment (such as lawn mowers, sprinkling devices, etc.)
Endowments

## Current:

Cash (bank account)
Petty Cash
Dues Receivable
Notes Receivable
Deferred Charges:
Supplies (inventory)
Prepaid Insurance
Prepaid Interest

## LIABILITIES

Fixed:
Mortgage Payable
Current :
Accounts Payable
Accrued Interest Payable
Accrued Taxes
Proprietorshif:
Capital Surplus
Reserves

## PROFIT AND LOSS ACCOUNTS

Income:
Membership Dues
Initiation Fees
Revenue from Restaurant
Revenue from Bowling
Expense:
Supplies for Restaurant
Supplies for Bowling
Office Salaries
Caretaker's Salary
Heat and Light
Depreciation
Telephone and Telegrams
Advertising
Entertainment
Repairs
Incidental Expense
Special Records for Clubs. Clubs and societies should have a member-ship-dues register as well as an accounts receivable ledger if charges other than dues are made to members. Sundry accounts receivable are best carried in the general ledger. Social clubs often have billiard room, bowling
alley, cafe, cigar stand, etc., as operating units. These activities require that records be kept on an accrual basis and be distributed according to departments, in exactly the same manner as a trading concern. For example, the Cafe Operating Account should be debited with all supplies and expenses chargeable against the cafe. It will be credited with the cafe revenue and at the close of the month or year with the inventory of supplies and provisions.

Here is a Cafe Revenue Account as it would appear after the entries during the year are made. Usually such an account would contain many detail entries. Only enough are shown here to illustrate the purpose of the Revenue Account.

## CAFE REVENUE

| 1922 |  |  | 1922 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. 1 | Supplies | 1,200 00 | Dec. 31 | Revenue for Year | 4,276 00 |
| July 5 | Expenses | - 92000 |  | Inventory Supplies . . . | 20000 |
| Dec. 31 | Expenses - ${ }^{\text {a }}$. | + 40000 |  |  |  |
|  | Balance, Net Profit. | 1,95600 |  |  |  |
|  |  | 4,476 00 |  |  | 4,476 00 |

The balance shows the net profit or loss for the year and is carried to the annual report as Net Revenue from Cafe. Similarly, the cigar stand, billiard room, bowling alley, bar, dormitory, or other operating accounts are kept, and the net resuit closed monthly or annually into the corresponding Net Revenue Account. This enables one to see from a glance at the proper Net Revenue Account the relative profitableness of the department under consideration.

How Clubs Handle Depreciation and Replacements. Depreciation charged as an expense of maintenance in institutions or clubs not conducted for profit does not mean very much. In the case of a club, if depreciation is charged on the building and furniture, and in addition repairs are made as needed, the members presumably are paying part of their dues each year for the purpose of replacing the fixed property, when it becomes necessary. In most clubs, however, the building and furniture will be replaced by special contributions or by a bond issue, even after the charge for depreciation has been made regularly. The reason for this is that the money supposedly paid in each year as a replacement fund was used for something else, thru ignorance on the part of the club officials as to what a reserve is really for. The only means of avoiding such a situation is to actually fund the depreciation charges and invest the fund in liquid securities, such as stocks, bonds, etc.

A Y.M.C.A. receiving donations as its principal means of support, needs to charge depreciation on its building and furniture as an operating expense. At the close of the year, its operating statement should show the actual cost of operation. Donors are asked to contribute the amount of the expenses as shown for the last year on the theory that they will be practically the
same for the coming year. The full amount is raised. The process is repeated for several years. When the building needs replacing, one of two conditions is met.

1. The trustees have a fund on hand sufficient to build a new building, as a result of having the annual contributions representing the amount of depreciation set aside.
2. The trustees must call upon some wealthy person or persons to donate a large sum for the erection of a building. If the latter is the case, as it more likely would be, it means that the donors, from year to year, have been contributing for replacement purposes, but that the money has been used in some other way.

How to Prepare Statements for a Country Club. The following problem illustrates some of the transactions of a club and shows how the necessary statements are prepared.

The West Shore Country Club on January 1, 1922, had a balance of $\$ 4,000.00$ cash. The transactions during the year are represented in the following accounts:

| Cash | \$ 7,218.00 | \$ 2,515.00 |
| :---: | :---: | :---: |
| Dues Receivable. | 6,200.00 | 7,100.00 |
| Income from Dues |  | 6,200.00 |
| Library Equipment. | 500.00 |  |
| Billiard Equipment | 1,700.00 |  |
| Billiard Expenses. | 200.00 |  |
| Office Expenses. | 150.00 |  |
| Telephone. | 150.00 | 10.00 |
| Interest. | 15.00 | 108.00 |
| Accounts Payable | 1,500.00 | 1,900.00 |
| Notes Payable. | 200.00 |  |
|  | \$17,833.00 | \$17,833.00 |

Assuming that the billiard equipment and billiard expense charges were made thru Accounts Payable, prepare a summary of cash receipts and disbursements. Also prepare a statement of income and expenses for the year.

Advantage of Using a Working Sheet. Before we can prepare the two statements called for, we must analyze the transactions. That is, we must account for all the cash received and all the cash disbursed. To accomplish this, we use a simple working sheet, in which we break up the transactions into their elements.

In other words, we list all amounts actually received and disbursed, as opposed to the items that represent income and expense. Cash disbursements are not all expenses, neither are all cash receipts income. Study the following working sheet to see how the analysis is made.
WORKING SHEET FOR ANALYSIS OF CASH AND INCOME

Figure 5.-This working sheet shows you how to analyze the transactions of a nontrading concern before preparing the two reports, Cash Receipts and Disbursements Statement and Income and Expense Statement.
Note especially how the cash increase is reconciled with the income. If adjustments must be made for inventories or
accrued and deferred items, then the working sheet would have four more columns, two for adjustments and two for an adjusted trial balance. With this working sheet before you, you will be able to follow the discussion as given in the next few pages of the assignment.

Analysis of Cash Receipts as Distinguished from Income. In solving this problem, we start with the cash items as shown in the working sheet. Since $\$ 7,218.00$ represents the amount received, it is necessary to select those credit items which show the source of the cash so received. In looking down the credit transactions column it is obvious that the $\$ 2,515.00$ credit to Cash has nothing to do with the debit to Cash. The $\$ 7,100.00$ credited in the Dues Receivable Account is presumed to be made up largely, if not entirely, of cash, because it is known that the Dues Receivable Account is debited as dues are levied during the year and credited as the amount receivable is reduced for any reason whatever. Dues Receivable might be reduced by cancellation thru action of proper officials, executives, committees, or boards, of governors. Accordingly, in placing this $\$ 7,100.00$ as a cash receipt item, we do so only for the time being, until it is possible to determine whether any other items seem to indicate the Dues Receivable were reduced otherwise than upon receipt of cash from the members. The fact that the credit to Dues Receivable is greater in amount than the debit means that some of last year's dues were collected or that some have been collected in advance to apply on the approaching year.

Take the next credit item, $\$ 6,200.00$ Dues, which is like a Sales Account in a trading concern. Since it is the same in amount as the debit to Dues Receivable, it is apparent that it is the result of an entry charging members with dues for the year. Accordingly, it forms no part of the cash received as a part of the statement, but Cash was debited and Dues Receivable was credited when the cash was received. The $\$ 6,200.00$ is evidently included already in the cash receipts, $\$ 7,218.00$.

The $\$ 10.00$ credit to Telephone is undoubtedly caused by the receipt of cash. In a club, it is quite common for members to use the telephone for long distance calls and pay for them later. The club, in this case, undoubtedly paid the full telephone bill for the year, amounting to $\$ 150.00$, but received $\$ 10.00$ back from members. Usually, such charges are made thru an Accounts Receivable Account, which is ultimately converted into cash. Since no Accounts Receivable Account seems to be debited in this case, and since the charge to Dues Receivable exactly corresponds with the credit to Dues, it is only natural to assume that the $\$ 10.00$ credit to Telephone came as a result of a debit to Cash.

In a similar manner, the $\$ 108.00$ Interest credit represents a cash receipt item. One does not find any Accrued Interest Receivable, or similar account, to indicate that any portion of the $\$ 108.00$ might be the result of an adjusting entry. All the $\$ 108.00$ was actually received.

Since it is known that a credit to Accounts Payable is usually accompanied by a debit to some expense or property account other than Cash, it is hardly necessary to try to connect the $\$ 1,900.00$ item with cash received. This is especially true since the problem states that "billiard equipment and billiard expense were made thru Accounts Payable." It is seen that the sum of the two charges mentioned equals in amount the $\$ 1,900.00$ credit to Accounts Payable.

As a result of this scrutiny of the credit items, it seems that the $\$ 7,100.00, \$ 10.00$ and $\$ 108.00$ are the only ones credited at the same time Cash was debited. Accordingly, the total cash receipts should be the sum of the three items mentioned. By referring to the solution, it is seen that
these do correspond with the total Cash Received as given in the transactions for the year.

Analysis of Cash Disbursements as Distinguished from Expenses. After completing the analysis of the cash received, the next step is to analyze the cash disbursements. Enough charges are to be selected to make up a total of $\$ 2,51.5 .00$, representing cash paid. This selection is made in compliance with one's knowledge of accounts as to when they are ordinarily debited and credited. The first two debit items have been taken care of already as having no direct effect on cash disbursements. The third item, $\$ 500.00$, for

| STATEMENT | West Shore Country Club OF CASH RECEIPTS AND DISBURSEMENTS For the Year 1922 |  |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | \$11,218.00 |
| Disbursements: |  |  |
| Library Equipment Office Expense. | . . . $\$ \quad \begin{aligned} & 500.00 \\ & 150.00\end{aligned}$ |  |
| Telephone . . . . | . . . . 150.00 |  |
| Interest. . . | . . 15.00 |  |
| Accounts Payable. | 1,500.00 |  |
| Notes Payable | 200.00 | 2,515.00 |
| Balance December 31, 1922. . . . . . . . . . . . . . . . . . . \$ 8,703.00 |  |  |



Figure 6.-In the cash statement, you will note the balance of $\$ 4,000.00$ on January 1, 1922. To this is added the cash received during the year. From this amount is deducted the cash paid out. The income and expense statement contains the same items as those in the income and expense columns of the working sheet.
library equipment, was probably created as a result of buying on account or for cash. Since it has been established in this instance that the only purchases on account were those for billiard equipment and billiard expense, this $\$ 500.00$ purchase must be included as an item among the cash payments. By similar reasoning, the Office Expense, Telephone, Interest, Accounts Payable, and Notes Payable debits must be considered as items to place in the statement of receipts and payments as affecting the disbursement. Placing the balance of $\$ 4,000.00$, on hand at the beginning of the year, in its proper place, one finds that the balance at the close of the year is $\$ 8,703.00$.

Net Income Not the Same as the Cash Balance. It should be noted that while the net income for the year was $\$ 5,803.00$, there was only $\$ 4,703.00$ more cash at the close than at the beginning of the year. Thus, it is seen that cash increase is not synonymous with profits; neither is cash decrease the same as losses.

From the working sheet and its explanation, it is now a comparatively easy matier to prepare the two statements called for. The cash statement is set up from the cash columns of the working sheet and the income and expense statement is set up from the expense and income columns. If a columnar cash book is used, the cash statement can be prepared from the cash book without a working sheet. (See Figure 6.)

Comments on the Solution. This problem, besides illustrating some of the distinguishing characteristics of club accounts, shows clearly the differences between cash receipts and income, and cash disbursements and expenses.

The income of the West Shore Country Club is $\$ 6,318.00$, while the cash received amounts to $\$ 7,218.00$. Evidently, the excess $\$ 900.00$ in the cash received is not income for the period. This $\$ 900.00$ may have been received either for back dues or for dues paid in advance. Income represents the earnings of the period, while cash receipts include all actual cash received. The income should also include all accrued earnings, such as accrued interest, uncollected commission, etc., as in the profit and loss statement of a trading concern. The West Shore Country Club did not have any such items. In the statement of income and expense of the Jones \& Williams firm, shown on page 7 you have an item of accrued interest, which is added to the interest actually received.

A difference is also seen between expenses and cash disbursements. The expenses of the West Shore Country Club, as shown on the statement, are $\$ 515.00$, while the cash disbursements amount to $\$ 2,515.00$. The cash paid out, that cannot be considered as expense, is composed of $\$ 500.00$ for library equipment, and $\$ 1,500.00$ paid to creditors. Both payments reduce the Accounts Payable. The first item is for the purchase of a new asset, while the second reduces a liability. Neither of these transactions gives rise to any expense, but they do affect the Cash Account.

Expenses must also include items that have not yet been paid, such as accrued interest payable, accrued wages, etc. The West Shore Country Club, however, did not have any such accruals.

There is thus a great difference between the expenses of a business and the cash disbursements. They should therefore never be confused. Such distinction is very essential in trading as well as nontrading concerns, and in profit as well as nonprofit enterprises.

## MAIN POINTS IN THIS ASSIGNMENT

In this assignment you have not learned merely a set of rules that must be followed in keeping the books of nontrading concerns. You have become familiar with certain principles that are applied especially to nontrading concerns. The most important of these points are summarized here so that you will be able to fix them in mind and apply them to your problem work.

First: The distinction between nontrading concerns and other businesses:

1. Commercial nontrading concerns sell service.
2. Other businesses both as merchandising and manufacturing buy and sell commodities.

Second: Classification of nontrading concerns.

1. Those that are conducted for profit.
2. Those that are not conducted for profit.

Third: Essential Accounting Features of nontrading concerns for profit.

1. Other accounts used in place of Sales Account.
2. Special accounting records used by professional firms.
3. Classification of accounts used by professional firms.

Fourth: Accounting for nontrading concerns not operating for profit.

1. Special registers for members in club.
2. Special revenue accounts for cafe, restaurant, billiard room, etc.
3. Classification of accounts for a club.

Fifth: Preparation of statements.

1. Cash receipts distinguished from income.
2. Cash disbursements distinguished from expense.
3. Cash balance distinguished from net income.

Thruout the assignment you have also seen how the trial balance can be developed by taking the trial balance of a previous date and giving effect to all the transactions during the period. This is a method often used by an accountant under certain conditions, especially when the records are incomplete in some particular.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 27

## Prepare and send in solutions for all of the following problems:

1. Give the name of the account or accounts in each of the following enterprises that correspond to the Sales Account of a trading concern: hotel (rooms only), architect, real estate, physician, Salvation Army, gas company, railroad company, theater.
2. Show in journal form the entries necessary to record the following transactions of a club:
(a) Annual dues levied.
(b) 1. Light bill handled thru accounts payable.
3. Payment of light bill later.
(c) Additional bookcase purchased for cash.
(d) Collections made from members on account of dues.
(e) Cancellation of last year's dues as uncollectible.
(f) Adjustment for depreciation of furniture at end of period.
4. From the data appearing on the books of the Roosevelt Club on December 31, 1922, prepare the following:
(a) A trial balance as of December 31, 1922.
(b) A summary of receipts and disbursements for the year ended December 31, 1922. Distinguish carefully between cash disbursements and expenses handled thru Accounts Payable. Expenditures amounting to $\$ 7,240.00$ were credited to the Accounts Payable account, as follows: entertainment, $\$ 1,360.00$; general expense, $\$ 925.00$; taxes, $\$ 75.00$; books for the library, $\$ 500.00$; new furniture, $\$ 3,600.00$; postage and stationery, $\$ 280.00$; periodicals, $\$ 400.00$; telephone, $\$ 100.00$.
(c) A statement of income and expenses for the year ended December 31, 1922.
(d) A balance sheet as of December 31, 1922.

5. A lodge had a membership of 500 beneficial and 120 social members at the beginning of the year 1922. Its records showed that 75 beneficial and 15 social members were taken in during the year as follows:

25 beneficial and 10 social, April 1.
20 beneficial and 5 social, July 1.
30 beneficial, October 1.
The annual dues are payable quarterly, in advance, at the following rates: Beneficial, $\$ 9.00$ per year ; Social, $\$ 5.00$ per year.

Three of the beneficial members died during the year, one on June 10, one on November 10 and one on November 18. The lodge contributed $\$ 150$ burial expense and a floral wreath at a cost of $\$ 10$ in each case.

The general report for 1922 showed that 5 beneficial and 3 social members were dropped at the close of the year for failure to pay dues. The rules provide that members are dropped if no dues have been paid for a year. Dues were owing at the beginning of 1922 from 10 social members since October 1, 1922, and at the end of 1922 there were 29 beneficial and 7 social members who had not paid their dues for the last quarter.

During the year two entertainments were given, the first was for the benefit of the Old Folks Home and $\$ 382.00$ was received. Expenses were paid amounting to $\$ 95.00$ and the balance was sent to the Home. The proceeds from the second entertainment were $\$ 514.40$, expenses of $\$ 117.60$ have not been paid, but the balance was given to the Childrens Home. The lodge also donated $\$ 50.00$ to the Red Cross during 1922.

A per capita tax of $\$ 0.60$ per member was paid to the Grand Lodge at the end of 1922, based on the revised membership at that date. The lodge owns the building in which the hall is located. Part of this building was leased in 1921 to a storekeeper who has paid a rental of $\$ 150.00$ per month in advance. During the year there was a fire in the store which necessitated the expenditure of $\$ 250.00$, but this was collected from the insurance company.

Cash on hand at the beginning of the year was $\$ 2,000.00$ and stationery bills for $\$ 36.70$ from 1921 were paid in January, 1922. Lodge expenses paid during the year amounted to $\$ 460.00$.

From the facts given, make up a statement of receipts and disbursements, showing cash on hand at December 31, 1922. The best plan of solution is to study the facts separately and then summarize the results on a cash statement.

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

## Assignment 28 <br> AGENCY ACCOUNTS BRANCHES-CONSIGNMENTS

${ }^{7}$ HERE exists a real dearth of properly trained Public Accountants. For men who are fully equipped and who have vision and are inspired with a real appreciation of the scope of the Accounting profession, the opportunities are unlimited, both for service and for receiving equivalent compensation.
W. D. WHITCOMB

Whitfield, W'hitcomb \& Co., Portland, Oregon

## LaSalle Extension University Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## AGENCIES <br> BRANCHES AND CONSIGNMENTS

Commercial enterprises may be local or nation wide in scope. Such organizations vary from the simple form of the local retail store to the complexity of the modern giant corporation which buys, produces, and sells in every part of the country; indeed, in every quarter of the globe.

These complexities of organization mean, of course, elaborated accounting systems. This must of necessity be so if the activities of distant agents, branch managers, and operating centers are to be adequately controlled and their operations reflected correctly on the general ledger at the home office.

To a surprising extent the business of the world is conducted thru agencies or branch houses. As proof of this it is only necessary to think of the large insurance companies with branches in every important city; the extensive chain-store organizations with their local stores in every neighborhood or the great transcontinental railroads with stations from coast to coast.

It is important then that the accountant understand the methods of accounting for branches as well as other agencies, such as commission merchants and merchandise brokers.

## BRANCH HOUSE ACCOUNTING

The details of a branch accounting system are of course dictated by the home office. It may consist of the simplest kind of a daily or monthly report of operations, or it may be as independent and complete a set of records as is found in any business enterprise. The degree to which the branch system is independent in detail from home office records will depend upon the nature of the business, the distance from the Home Office, and certain special features. such as foreign exchange and legal requirements placed on the enterprise.

Accounting Procedure for Branches. Broadly speaking, one of two methods is usually to be found in branch house accounting, as follows:

1. The branch will keep a fairly conplete set of books which will be duplicated at the home office.
2. The branch will report its operations periodically to the home office to be incorporated in its accounts, keeping only such accounts as are necessary to furnish data for such reports.
The first method is not very extensively used, because it requires an unnecessary duplication of work. Some of the larger concerns, therefore, have their branches keep loose-leaf records and send them to the head office periodically for posting.

The second method is more commonly used, because the accounting detail is less burdensome. The control obtained thru the periodic reports is supplemented by traveling auditors, who check up on the branch independently. This, together with the custom often followed of permitting the branch manager to share in the profits of his branch, usually gives satisfactory results both as to accounting and general supervision.

The Tie-up between Branch and Head Office Books. The head office, under this method, will usually carry a Branch Office Account and the branch office a Head Office Account. These accounts are the counterparts of each other. Cash furnished the branch is charged to the Branch Office Account on the books of the head office and is credited to the Head Office Account on the books of the branch. Similar entries are made for merchandise sent to the branch, or for branch expenditures paid by the head office.

Remittances made by the branch from time to time are charged to the branch Head Office Account and are taken up as a credit to the Branch Office Account on the books of the head office. Likewise, when the branch operations are reported to the head office, the Head Office Profits Account will be credited with any profit or charged with any loss. The head office on the other hand will charge the branch office with profits and credit it with losses.

The chief problem in braneh house accounting, therefore, is to keep the Branch and Head Office Accounts periodically reconciled. They may disagree at times because of items recorded in one set of accounts but not yet taken up in the other. For instance, merchandise or cash may be in transit, properly charged or credited in one account, but not yet received for entry in the other. These differences must always be taken into consideration in bringing about a complete reconciliation.

## HOW GOODS ARE CHARGED TO THE BRANCH

There are two plans in common use by which the head office charges the branch for the goods shipped to it.

1. Goods Charged at Cost Price. This method is used when the stock is perishable, when prices vary according to quantities, or when they fluctuate rapidly with market conditions. It is also most desirable when the stock is of such a nature that it can only be properly checked thru a physical inventory, such as groceries, drugs, novelties, etc.
2. Goods Charged at Selling Price. It frequently happens that the proprietor at the head office does not care to have the branch manager know how much profit his branch is earning. Accordingly, all goods that are sent to the branch are billed at the selling price rather than at cost.

This method of charging the branch is most applicable when the selling price remains more or less fixed. It makes the operation of a perpetual inventory, in such cases, especially valuable as a check on merchandise.

Under either method the main accounting problem is to reconcile the head office books with the records of the branch. Both methods will now be illustrated with simple problems.

## PROBLEM

Accounting Procedure When Goods Are Billed at Cost. The Smith Mercantile Company, of New York, establishes three branches-in Toledo, Chicago, and Denver. Each branch is required to keep complete records and submit monthly reports. The transactions of the Toledo branch are as follows:

```
Received from head office January 7, 1922:
    Cash . . . . . . . . . . . . . . . . . . . . . $ 6,000.00
    Merchandise (at cost price). . . . . . . . . 35,000.00
January transactions:
    Sales on Account . . . . . . . . . . . . . . 25,000.00
    Sales for Cash . . . . . . . . . . . . . . . 15,000.00
    Collections from Customers . . . . . . . . . . 17,000.00
    Freight and Expenses Paid. . . . . . . . . . . 6.200.00
    Monthly Salary of Branch Manager Paid. . . . . }300.0
```

On January 31, the branch manager makes his report to the head office, in which he states that $\$ 9,000.00$ worth of merchandise is still on hand. With his report he sends a check for $\$ 25,000.00$.

Using this data we set up the solution of the problem:
I. For the Branch Books.
II. For the Head Office Books.

I-Entries on the Books of the Branch. In presenting the books of the branch we show the following:
(a) Journal entries for branch transactions during January.
(b) Ledger accounts after the journal entries have been posted.
(c) Closing entries.
(d) Head Office Account.

In recording the branch transactions we have entered them all in the journal. Cash transactions would of course be entered in the cash book. Journal entries are used here because they bring out clearly the debits and credits.
(a) Journal Entries for January Transactions.

```
1922
Jan. 7 Cash. . ................. $ 6,000.00
    Head Office. . . . . . . . . . . . . . . . . . $ 6,000.00
    For cash received
    from head office
        Merchandise . . . . . . . . . . . . . $35,000.00
        Head Office. . . . . . . . . . . . . . . . . $35,000.00
            For goods received
            from head office
Jan. 7-31 Customers. . . . . . . . . . . . . $25,000.00
        Sales. . . . . . . . . . . . . . . . . . . . . $25,000.00
            For Sales on Account
```

|  | Cash. . | \$15,000.00 |  |
| :---: | :---: | :---: | :---: |
|  | Sales. |  | \$15,000.00 |
|  | For cash sales |  |  |
|  | Expenses. | \$ 6,200.00 |  |
|  | Cash . ...... |  | \$ 6,200.00 |
|  | For expenses at branch |  |  |
|  | Cash. | \$17,000.00 |  |
|  | Customers. |  | \$17,000.00 |
|  |  |  |  |
| 1922 |  |  |  |
| Jan. 31 | Expense | \$ 300.00 |  |
|  | Cash . . . . . . . . . | . . . . . | \$ 300.00 |
|  | Por monthly salary of branch |  |  |
|  | manager |  |  |
|  | Head Office | \$25,000.00 |  |
|  | Cash. |  | \$25,000.00 |
|  | For remittance to head office |  |  |

(b) Ledger Accounts of the Branch.

After the journal entries have been posted, the ledger accounts on the books of the branch will appear as follows. It is understood of course that such accounts as Customers', Sales, Expense, and Cash would contain detail items. Merely balances are given here because they are sufficient to illustrate the purpose of the accounts.

CASH

| 1922 |  | 1922 |  |
| :---: | :---: | :---: | :---: |
| Jan. 7 | Prom head office. . . . $\$ \$ 6,000.00$ | Jan. 31 | Expenses . . . . . . . $\$ 6,200.00$ |
| 7-31 | Cash sales. . . . . . . ${ }^{\text {a }}$ 15,000.00 |  | Manager's salary . . . 300.00 |
| 7-31 | Collections from customers $17,000.00$ |  | Cash sent to head office $25,000.00$ |

HEAD OFFICE

| 1922 | 1922 |  |
| :---: | :---: | :---: |
| Jan. 31 Cash sent to head office. $\$ 25,000.00$ | Jan. 7 | Cash received. . . . . $\$ 6,000.00$ |
|  |  | Goods received . . . . . 35,000.00 |

CUSTOMERS

Jan. 31 Sales on account. . . $\$ 25,000.00 |$| 1922 |
| :--- |
| Jan. 7-31 Collection from |
| customers. . . . . $\$ 17,000.00$ |

MERCHANDISE
1922
Jan. 7 From head office. . . . . $\$ 35,000.00$

EXPENSE


## (c) Closing Entries on Books of Branch.

On January 31 the branch manager will make the following closing entries:

```
    1922
Jan. 31 Profit and Loss . . . . . . . . . . . $35,000.00
            Merchandise. . . . . . . . . . . . . . . . . . $35,000.00
            To adjust the previous
            inventory
            Inventory . . . . . . . . . . . . . . $ 9,000.00
            Profit and Loss . . . . . . . . . . . . . . . . $ 9,000.00
            To set up current inventory
            Profit and Loss . . . . . . . . . . . $ 6,500.00
        Expense. . . . . . . . . . . . . . . . . . . . $ 6,500.00
            To close the Expense Account
            Sales . . . . . . . . . . . . . . . . $40,000.00
        Profit and Loss. . . . . . . . . . . . . . . . $40,000.00
            To close the Sales Account
Profit and Loss . . . . . . . . . . . $ 7,500.00
        Head Office. . . . . . . . . . . . . . . . . . $ 7,500.00
            To close Profit and Loss into
            the Head Office Account
```

After these closing entries have been posted, the nominal accounts will appear thus:

| EXPENSE |  |  |  |
| :---: | :---: | :---: | :---: |
| 1922 |  | 1922 |  |
| Jan. 7-31 | Expenses $\quad$ Manager's salary $. . \$ 6,200.00$ 300.00 | Jan. 31 Closed to Profit and Loss | \$ $6,500.00$ |
|  | \$ 6,500.00 |  | \$ 6,500.00 |



(d) Head Office Account a Liability of Branch. Observe the debits and credits that have been made to this account. It has been credited with the cash and goods received from the head office. It has been debited with cash sent to the head office.

At the end of the month it is credited with the net profit of the branch. That is, the branch Profit and Loss Account is closed into the Head Office Account. The credit balance represents the amount that the branch owes the head office. This balance is an actual liability of the Toledo branch.

The account also shows the net worth of the branch, which in this case is $\$ 23,500.00$. The account is the tie-up between the branch and the head office, as will be explained later.

II-Entries on the Books of the Head Office. Thus far we have considered only the books of the branch. It is equally important that you are familiar with the entries on the books of the head office. Separate accounts will be kept for each branch. These accounts should be distinct from the accounts in which the other transactions of the business are recorded.

The head office entries may be grouped as follows:
(a) Goods shipped
(b) Cash advanced
(c) Goods purchased
(d) Expenses paid

The entry made when the Smith Mercantile Company sent cash and goods to the Toledo Branch was as follows:

```
1922
Jan. 1 Toledo Branch . . . . . . . . . . . $41,000.00
    Cash . . . . . . . . . . . . . . . . . . $ 6,000.00
    Merchandise. . . . . . . . . . . . . . . 35,000.00
                For cash advances and ship-
                ment to Toledo branch
```

The entries on January 31, when the head office received a cash remittance and the monthly report from the branch manager, were as follows:

```
    1922
Jan. 31 Cash. . . . . . . . . . . . . . . $25,000.00
                            Toledo branch. . . . . . . . . . . . . . . . $25,000.00
                            For cash received from
                            Toledo branch
Toledo branch . . . . . . . . . . . . $ 7,500.00
    Profit and Loss. . . . . . . . . . . . . . . $ 7,500.00
            To record profit realized on
            the Toledo branch
```

After these entries are posted, the head office accounts, affected by the entries, will appear thus:


The last three accounts would also contain other debit and credit items, due to general transactions and operations in the other branches. They are shown here for the purpose of illustrating the complete record of branch entries.

Purpose of the Branch Account. You will observe that the Branch Account is debited with goods shipped and cash advanced to the branch. These debits represent the original investment of the head office in the branch. Other shipments and advances would be likewise charged, as the investment is thereby increased.

Whenever the branch makes a remittance of cash to the head office the Branch Account is credited, as shown in the illustration. At the end of each period the profit realized from the branch operations is charged to the Branch Account, because the profit increases the investment made in the branch. In this case the debit balance of $\$ 23,500.00$ represents the net investment which the head office had made, plus the net profit as shown by the following analysis:


This investment appears in the Branch Account as a debit balance, representing the amount for which the branch manager must account.

On the books of the branch the amount consists of actual assets, which may be summarized thus:


## TIE-UP WITH HEAD OFFICE BOOKS

The liability, or accountability, of the branch to the head office for these assets is shown by a credit balance in the Head Office Account on the books of the branch. The asset, or investment, of the head office in the branch is shown by a debit balance in the Branch Account on the books of the head office.

You can see, therefore, that the accounts of the branch and the accounts of the head office are completely reconciled.

This reconciliation feature is illustrated by the chart shown in Figure 1.

Accounts of Toledo Branch


Reconctliation of Branch Accounts With Books of Head Office
Figure 1. The two sets of books are reconciled by the Branch Account of the head office and the Head Office Account of the branch. The accounts given here contain merely the balances, and only those accounts of the head office are shown that relate to the Toledo branch. The proprietorship claim of the head office would of course be merely a part of the Capital and Surplus Accounts.

Balance Sheet of Head Office. When the balance sheet of the head office is prepared, the Toledo Branch Account might be listed on the asset side along with the Branch Accounts for the other two branches. It is much better, however, to distribute the branch assets among the various classes of assets on the balance sheet in order that the group totals will be correct.

With the assets properly grouped and classified, the relation between current assets, fixed assets, current liabilities, and fixed liabilities will be accurately shown. Anyone using the statement will then be able
to pass more accurately on the financial and credit strength of a concern. Unless care is taken in this particular, false conclusions may often be deduced.

## PROBLEM

Illustrating the Procedure When Goods Are Billed at Selling Price. A large automobile accessory concern has headquarters and a general sales department in Chicago. It controls ten operating branches in various parts of the United States. All purchases for the branches are made by the head office, and goods are billed to the branches at 50 per cent above cost as an average selling price.

On May 1, 1922, the Detroit branch had $\$ 3,900.00$ worth of merchandise on hand at the billed value. It also had cash on hand of $\$ 500.00$, and a total of customers' accounts amounting to $\$ 4,800.00$.

On May 9, the branch received additional merchandise, shipped on May 2 , billed at $\$ 51,000.00$. During the month the following sales were made: On account- $\$ 45,300.00$. For cash- $\$ 3,000.00$.

It collected $\$ 30,000.00$ from customers during the month and paid expenses amounting to $\$ 2,800.00$. On May 31 the branch manager reported that he still had on hand $\$ 6,600.00$ worth of goods. He also sent to the head office a check for $\$ 30,000.00$.

Using this data, we set up the solution of the problem:
I-For the Branch Books
II-For the Head Office Books
I--Book of the Branch Office. The following accounts will be used by the branch to record the May transactions.

Head Office Stock. (Memorandum)
Purchases from Head Office. (Memorandum)
Head Office General
Cash
Customers
Expenses
Sales
The first two accounts are merely memorandum accounts, and have no financial significance. When goods are received, the Head Office Stock Account is debited and the Purchases from Head Office Account is credited with the billed value of the goods. The debit balance of the first is always offset by the credit balance of the second.

All the other accounts on the books of the branch represent actual values. The Head Office General Account is a liability account and shows what the branch owes the head office. Its credit balance should always agree with the debit balance in the Branch General Account on the books of the head office.

Ledger Accounts of the Branch With Transactions Entered. After the May transactions have been entered, the branch accounts will appear thus:

## LEDGER ACCOUNTS FOR DETROIT BRANCH



Since the goods are billed to the branch at an average sales price, no attempt is made to determine the profit on the books of the branch. There is no Profit and Loss Account used, therefore, in closing the branch accounts.

The amount for which the branch must finally account to the head office is found in the two accounts:

> Head Office General
> Head Office Stock

How To Prepare A Branch Report. Business houses selling thru branches require that the managers of the branches send in periodical reports. In most cases these reports are required monthly, in some businesses weekly or daily.

When a business has rapid turnover and requires a daily checking on financial items, daily reports are submitted by the branch. When details of the accounting work are handled by the head office, daily or weekly reports are made.

If, however, the central office checks its branches by means of controlling accounts, perhaps monthly reports are sufficient.

In general it may be said that the frequency of the branch reports depends largely upon the nature of the business, the form of the organization, the accounting system at the head office and the branch, and in most cases upon the personal wishes of the management of the business.

Most business concerns now furnish their branches with uniform blank forms to be filled out by the branch manager. The report generally contains information on the following points:
Stock
Sales
Customers' Accounts
Cash

The monthly report of the Detroit manager sent on May 31, 1922, is illustrated in Figure 2.

II-Books of the Head Office. The head office will use the following accounts in recording the May transactions with the Detroit branch.

Branch Stock (Memorandum)
Goods Sent to Branch (Memorandum)
Branch General
Branch Profit and Loss
Cash
The first two accounts are memorandum accounts, and correspond to the two memorandum accounts on the books of the branch. When the head office sends goods to the branch, billed to them at 50 per cent over cost, the Branch Stock Account is debited and the Goods Sent to Branch Account is credited.


## Branch Report

Figure 2. The information in this report is important, because it is the basis for entries in the books of the head office.

The Branch General Account is debited with branch sales and credited with cash remittances and branch expenses. The debit balance of this account represents the investment of the head office in the branch, except the stock which has been billed to the branch at 150 per cent of cost. The stock value is recorded in the Branch Stock Account merely as a memorandum, and will be referred to in the adjustments, which will be explained later.

Ledger Accounts on the Books of the Head Office. After the May transactions have been entered, including the facts on the May report, the head office accounts will appear thus:

## LEDGER ACCOUNTS FOR HEAD OFFICE



The last three accounts would :ontain other entries from the general transactions of the business.

Method of Adjusting the Head Office Accounts. When the head office bills goods to the branch at a price other than cost it is necessary to adjust the head office books in order to allow for the difference between the cost of goods sold and the price at which they were billed to the branch.

Trace the entries in the accounts given above so that you will understand the debits and credits that are made. It would be well to set up the journal entries from the accounts thus:

```
Detroit Branch Stock . . . . . . . . . . . . $51,000.00
    Goods Sent to Branch. . . . . . . . . . . . . . . . $51,000.00
Detroit Branch General . . . . . . . . . . . $48,300.00
    Sales . . . . . . . . . . . . . . . . . . . . . $48,300.00
```

You will find that these journal entries are for the most part selfexplanatory. There is one, however, that requires some explanation, namely, the adjustment for goods sold at the branch.
Detroit Branch Profit and Loss . . . . . . $\$ 32,200.00$
Head Office Inventory . . . . . . . . . . . . $\$ 32,200.00$

This entry adjusts the amount of goods sold at the branch to the actual cost value. The goods sold at the branch amounted to $\$ 48,300.00$. This amount represents the billed price of goods sold, which is 150 per cent of cost. In order to determine the cost, or 100 per cent, we must reduce sales by 33 1-3 per cent, thus:

$$
\$ 48,300.00 \times \frac{100}{150}=\$ 32,200.00, \text { cost of goods sold. }
$$

Since merchandise is recorded in the head office books at cost, this figure, $\$ 32,200.00$, should be credited to the Inventory Account and debited to the Branch Profit and Loss Account. With the Branch Profit and Loss Account debited with the actual cost of goods sold, and with expenses of the branch, and credited with the sales of the branch, all that remains to be done is to close the Branch Profit and Loss Account into the General Profit and Loss Account. This is accomplished by the following journal entry:

$$
\begin{aligned}
& \text { Detroit Branch Profit and Loss . . . . . . . } \$ 13,300.00 \\
& \text { General Profit and Loss . . . . . . . . . . . } \$ 13,300.00
\end{aligned}
$$

The same procedure would be followed for all the other branches. That is, a separate Profit and Loss Account is set up for each branch, and each of these is closed into the General Profit and Loss Account after adjustments have been made, as in the case of the Detroit branch.

It is understood, of course, that the head office will have its own sales, purchases, and expenses, which are recorded in accounts distinct from any branch. These general nominal accounts will also be closed into the General Profit and Loss Account along with the profit or loss of the ten branches. If a Trading Account is used, then Purchases and Sales will, of course, be closed into Trading, and Trading will be closed into the General Profit and Loss Account. The use of the Trading Account is seldom found, however, in actual practice on the books of the head office.

Adjustment of Branch Inventories Necessary for Balance Sheet. When the head office sets up its balance sheet, the inventories of the various branches should appear at cost.

The accounts with each branch kept by the head office, however, shows the billed value. For instance, in the case of the Detroit branch the amount
on May 31 is $\$ 6,600$. This figure represents the billed value, which is 50 per cent above cost. By reducing this amount the Detroit branch inventory is found to be $\$ 4,400.00$.

Adjustment Not Needed in the Memorandum Accounts. This calculation is made merely for the purpose of detailing the inventory on the balance sheet of the head office. The Branch Stock and the Goods Sent to Branch Accounts each shows a balance of $\$ 6,600.00$. Since these accounts are purely memorandum accounts, which offset each other, they are eliminated in preparing the balance sheet. These figures, therefore, are not adjusted but remain at the estimated sales valuation. It should be noted that from time to time this valuation is checked up by physical inventory to discover any actual losses of merchandise.

Tie-up Between Branch and Head Office Books. The connection between the two sets of books is found in the Branch General Account and the Head Office General Account. Refer to Figure 1, and you will observe that the two sets of books are reconciled here in exactly the same way as they were in Problem 1.

The Head Office General Account on the books of the branch has a credit balance of $\$ 20,800.00$, which represents the accountability of the branch to the head office, as follows:

| Cash on Hand. . . . . . . . |
| :--- |
| Accounts Receivable |
| $\$ 20,100.00$ |
| $\$ 20,800.00$ |

The Branch General Account on the books of the head office has a corresponding debit balance of $\$ 20,800.00$, consisting of the above assets in the possession of the branch. On the balance sheet of the head office these assets would be listed and classified as Cash, $\$ 700.00$, and Accounts Receivable, $\$ 20,100.00$.

## CONSIGNMENTS

There are many business houses that desire to extend their market and thus increase sales, but they do not consider it advisable to establish branches. For a business house in Chicago to set up branches in other cities requires a considerable outlay for fixed assets. Moreover, these branches must be supplied with a large and varied stock of goods, which necessitates the maintaining of large inventories. Then too, the total overhead of the business is increased by branches.

Moreover, it is easier to establish agencies thru consignments than to supervise branches. As a result, certain business houses prefer to ship their goods to local dealers on consignment, and thus avoid large expenditures which would be necessary if they established and supervised branches.

Why Some Concerns Sell on Consignment. There are only certain kinds of businesses that find it desirable to ship on consignment. For example, some of the large meat packers handle all of their foreign business by
consignment. Houses selling specialties, such as jewelry, oriental rugs, musical instruments, etc., find consignment trading advantageous.

Some business concerns use consignments only for part of their sales. A large piano house ships 25 per cent of its pianos on consignment. Large wholesale seed dealers ship a large part of their goods to small dealers on consignment.

Shippers of perishable produce have also found it desirable to ship their goods on consignment because this arrangement keeps the title to the goods in the hands of the shipper. This is desirable from the standpoint of the consignee, especially when there is an element of risk or uncertainty.

Consignment trading is also popular in businesses whose stock is moving slowly, or where the consignee has a limited capital on which to run his business.

Method of Selling on Consignment. Selling on consignment makes use of the store and equipment, the sales force and facilities, of local storekeepers. The services rendered by the dealer is paid for thru a fixed commission. That is, when goods are sold on consignment they are shipped to a merchant handling a similar or related line of goods. The title to the goods is retained by the manufacturer and the merchant is merely his selling agent. When the goods are sold, the commission and certain expenses are deducted and the balance remitted to the manufacturer.

Consignor and Consignee-Duties and Rights. The business or individual sending the goods to be sold on consignment is called the consignor. The business or individual to whom the goods are sent for sale under such an agreement is called the consignee or factor. The consignee is an agent of the consignor. As such, he is usually delegated with the restricted powers of a special agent. He acts for the principal (the consignor) only in so far as it is necessary to act for the purpose of receiving, handling, protecting, selling, delivering, collecting, and remitting to the consignor for the goods sent to him.

Meaning of Del Credere Agent. If the consignor stipulates that the goods may be sold on account, the consignee is not liable for bad debts incurred if he uses the same care in extending credit that he would for his own goods. If the consignor specifies that goods are to be sold for cash, the consignee is liable for any loss resulting from bad debts. When the consignee thus guarantees the consignor against loss from bad debts, the consignee is known as a "del credere" agent.

Title of Merchandise Does not Pass to Consignee. The goods handled by consignment remain the property of the consignor until they are sold by the consignee. Accordingly, the consignee does not include such goods in his inventory of salable merchandise at the close of a fiscal period. His balance sheet would show only goods that he holds title to. The consignor, however, does include such goods in his inventory, even tho they may be several hundred miles away from his main store.

Main Accounting Problem in Consignments. When goods are shipped on consignment, the accounts of both the consignor and consignee should be made to show the liability of one to the other and the accountability
arising as a result of the goods remaining in the possession of one party while the legal title rests in the other. The main accounting problem, therefore, includes two things:

1. Accounting for Inventory.
2. Settlement according to agreement.

Each party would like to have his accounts show as nearly as possible how much is made as a result of transacting business in this way. The special accounting features for both the consignor and consignee are illustrated in the following problem:

## PROBLEM

Illustrating Consignment Sales. The following problem illustrates three special accounting features for consignment sales.

1. Entries on books of consignee.
2. Account Sales-Report of consignee to consignor.
3. Entries on books of consignor.
L. M. Stattler, of Chicago, Ill., ships via the Chicago and Alton R. R., to Walter Camp, Springfield, Ill., a "del credere" agent, the following goods on consignment:

| Dec. | 1,1922 | 6 | phonographs | Style A | A | $\$ 150.00-$ Received | Dec. | 6 |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $"$ | 7 | 5 | $"$ | $"$ | B $@$ | $75.00-$ | $"$ | $"$ | 12 |
| $"$ | 15 | 18 | $"$ | $"$ | C @ | $80.00-$ | $"$ | $"$ | 20 |
| $"$ | 23 | 2 | $"$ | $"$ | D @ | $250.00-$ | $"$ | $"$ | 28 |

The goods are billed to the consignee at the selling price.
The cartage charges on these shipments were $\$ 25.00$. Insurance charges were $\$ 15.00$. Both of these were paid by Mr. Stattler on December 31.

When Mr. Camp received the goods, he paid freight and drayage as follows:

| Dec. ${ }^{6}$ | $\$ 15.00$ | Dec. 20 | $\$ 42.00$ |
| :--- | ---: | :--- | ---: |
| Dec. 12 | 14.00 | Dec. 28 | 4.00 |

Mr. Camp made sales as follows:

| Weeks ending | Number | Style | Unit Price |
| :---: | :---: | :---: | :---: |
| Dec. 9 | 4 | A | $\$ 150.00$ |
| Dec. 16 | 1 | A | 150.00 |
|  | 4 | B | 75.00 |
| Dec. 23 | 1 | A | 150.00 |
|  | 5 | C | 80.00 |
| Dec. 30 | 2 | D | 250.00 |

All sales were for cash except the following, which were sold to customers on open account.

On Dec. 29 Mr. Camp collected $\$ 475.00$ from customers.

On Dec. 31 Mr. Camp had on hand 1 phonograph of Style B and 13 phonographs of Style C, with a total value of $\$ 1,115.00$.

According to the agreement, Mr. Camp is to receive a commission of 5 per cent of gross sales. The commission, freight, and drayage charges are to be deducted on December 31 at time of submitting the account sales. Mr. Camp is required to remit all cash collected, less the deductions allowed by the agreement.

The cost of each style of phonograph is as follows: A, $\$ 75.00$, B, $\$ 40.00, \mathrm{C}, \$ 50.00, \mathrm{D}, \$ 150.00$.

Entries on the Books of the Consignee. There are two methods that may be followed in making entries on the books of the consignee. They are as follows:

Method One. This method requires no entry in the general ledger for goods received by the consignee. A record is kept only in a memorandum book.

An account called Current Account is opened on the general ledger with the consignor. This account is charged with all expenses of the consignment. It is credited with sales. When settlement is made this account is debited and Cash is credited.

If settlement is not made in full, the balance is usually transferred to a personal account with the consignor, since the consignor is personally liable for the amount.

Method Two. The second method makes use of two memorandum accounts on the general ledger of the consignee. When goods are received, Consignment Account is debited and Goods Received on Consignments is credited. At the end of the month, the memorandum accounts are closed.

The Current Account is set up on the general ledger, and is operated as in Method One.

The consignment accounts will, of course, be kept entirely separate from the other accounts of the business, in which are recorded the transactions not connected with the consignment.

The accounts of Walter Camp, which are kept according to Method One, appear as follows:

## ACCOUNTS OF WALTER CAMP



CASH


These accounts represent only those transactions that have to do with this one consignment. For this reason, these accounts should be kept in a separate part of the consignee's ledger; in fact, every consignment should have its separate set of accounts. The Commission Account is finally closed into the consignee's Profit and Loss Account, as a part of his income for the period.

Account Sales-Report of Consignee to Consignor. At regular intervals, monthly or weekly, the consignee makes a complete report of the consignment trading to the consignor. In the above case the report is rendered monthly. This report is called an account sales. It shows the quantity and value of the merchandise received; how these goods were disposed of; the selling price per unit; the total selling price, and goods remaining unsold or which had been returned to the consignor. Figure 3 presents a typical account sales.

Entries on the Books of the Consignor. The consignor may also adopt one of two methods for handling his consignment transactions. The two methods are very similar to those given for the consignee except that they are mentioned in the opposite order.

Method One. When goods are billed at a price other than cost, memorandum Accounts are set up for all shipments made on consignment. The amount billed, usually the selling price of goods shipped, is charged to a Consignment Account and credited to a Goods Sent in Consignment Account.

The memorandum accounts are used because the billing price consists of two elements, the cost and the anticipated profit. The billed price is therefore held in suspense in the memorandum accounts until the goods have been sold.

Method Two. When goods are billed at cost there is no necessity for the memorandum accounts. In this case a Consignment Account is charged with the goods at cost and the Purchase or Inventory Account credited directly.


Account Sales
Figure 3. This report contains all the details set up in the typical problem. For this reason it should be very closely analyzed.

In the problem being considered the first method is used, since the goods were billed at the selling price.

The following accounts show the records of L. M. Stattler.
These last four accounts would also receive entries for transactions not related to the consignment.

## ACCOUNTS OF L. M. STATTLER

CONSIGNMENT (WALTER CAMP)


GOODS SENT ON CONSIGNMENT


CONSIGNMENT EXPENSE

| 1922 |  |  | 1922 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dec. 31 | Cartage. | \$ 25.00 | Dec. 31 | Closed to Consignment |  |  |
|  | Insurance. | 15.00 |  | Profit and Loss | \$ | 220.00 |
|  | Commission | 105.00 |  |  |  |  |
|  | Preight and Drayage. | 75.00 |  |  |  |  |
| - |  | \$ 220.00 |  |  |  |  |

CONSIGNEE, PERSONAL


CASH
1922
Dec. 31 Received from Walter Camp. $\$ 1,695.00$
1922
Dec. 31 Cartage . . . . . . . $\$ 25.00$ Insurance . . . . . . 15.00

PURCHASES
1922
Dec. 31 Cost of shipments . . . $\$ 1,850.00$


You will note that the consignor charges the Consignment Account with the selling price of the goods shipped, and credits a Goods Sent on Consignment Account. These are purely memorandum accounts. At the end of the period when he receives the account sales, he debits Goods Sent on Consignment and credits Consignment Account with $\$ 2,100.00$, the amount of sales. The balance, carried down, represents the goods in possession of the consignee, valued at the billed or selling price.

From the account sales L. M. Stattler makes the following entry:
$\left.\begin{array}{llllrl}\text { Cash } & \$ 1,695.00 & \\ \text { Consignment Expense. } & . & . & . & . & .\end{array}\right)$.

The debit in the Consignee's Personal Account remains until the cash is received. The $\$ 225.00$ represents the amount still due from customers. Since Walter Camp is a "del credere" agent he is held responsible for this amount and he must collect. That is why he is charged on the books of L. M. Stattler instead of the customers.

A special Consignment Expense Account is charged with all consignment expenses. This account is closed into a Consignment Profit and Loss Account.

Closing Entries on the Books of the Consignor. At the end of the month the consignor will close his consignment accounts in order to determine the profit realized from the various consignments and the profit realized from other operations.

In order that you nay see more clearly how the consignment accounts are closed by the consignor, follow Mr. Stattler's closing entries journalized below and you will be able to understand the entries in the accounts given above.

1922
Dec. 31 Consignment Profit and Loss . . . . . . . . $\$ 220.00$
Consignment Expense . . . . . . . . . . . . . . . $\$ 220.00$
To close Consignment Expense Account
Consignment Profit and Loss . . . . . . . . $\$ 1,850.00$
Purchases . . . . . . . . . . . . . . . . . . . . $\$ 1,850.00$
To adjust the Purchase Account for cost of shipments.
Consignment Profit and Loss . . . . . . . . \$ 720.00
General Profit and Loss
. 720.00
To close Consignment Profit and Loss into General Profit and Loss Account.

The entries made in Consigmment Profit and Loss Account summarize the transactions connected with the consignment. Notice that it is charged with the cost of the shipments and credited with the sales made by the consignee and the cost value of goods in possession of the consignee. The balance represents the net profit realized on this one consignment.

A similar Profit and Loss Account is used to summarize the transactions for every other consignment. Then all these consignment Profit and Loss Accounts are closed into the general profit and loss account.

The Balance Sheet and Profit and Loss Statement of the Consignor. When Mr. Stattler prepares his balance sheet, he will not show the two memorandum accounts, Consignment and Goods Sent on Consignment. Instead, he will show the amount of goods in possession of the consignee at cost. In this case, the amount is $\$ 690.00$. This inventory is, of course, a part of his regular inventory, but it should be shown separate from the goods in his own possession.

If Mr. Stattler has shipped goods to numerous consignees, the value of goods in possession of all the consignees may be shown in total under the title "Goods on Consignment."

In the Profit and Loss Statement all income from sales on consignment will be shown either in detail, so much from each consignment, or in total for all consignment sales. In either case, the income from consignment sales is shown entirely separate from the income realized on regular sales.

The Balance Sheet and the Profit and Loss Statement of the Consignee. Since the consignee is merely an agent, he does not hold title to the merchandise in his possession. For this reason, Mr. Camp should not include the $\$ 690.00$ inventory in his balance sheet. Only goods that he has bought outright are listed under his inventory.

His income from consignments is simply the commission he has earned. This income should appear as a separate item on his profit and loss statement. It should never be included with profits realized from sales of his regular stock.

## MERCHANDISE BROKERS

In concluding this discussion on the accounting procedure for special selling agencies, brief mention is made of merchandise brokers. These brokers act as agents, or middlemen, between the selling business and customers.

Certain business houses prefer to sell thru brokers, because it reduces their sales promotion expenses to a minimum. It also eliminates some of the difficult problems of marketing their goods. Moreover, it helps them keep in closer touch with the fluctuations in prices and the demands of distant markets. A coffee or fruit producer, for instance, can employ brokers in Chicago and New York, who report daily on the condition of the market. The broker will advise his principal as to the best time for selling his goods.

Duties and Rights of the Broker. The broker is expected to sell goods at the best price possible. He merely negotiates the sale or contract of sale. He does not handle any of the goods he sells. At the end of the day or week the broker reports his sales to the merchant. Goods are then shipped to customers directly.

He receives a fee or a commission for his sales. This commission is earned when the sale is completed, except when the agreement specifies otherwise.

## BOOKS OF THE BROKER

The broker will, therefore, keep a duplicate of all sales, orders, or contracts from which he makes up his report. The amount of commissions earned should be charged to an Accounts Receivable Account with his principal.

In some cases the broker also makes collections from customers. This, however, would be specifically stated in the agreement. If the broker is expected to collect, he will receive a duplicate of the invoice sent to the customer by his principal. These invoices are then recorded on the books of the broker as Accounts Receivable from the customer, and Accounts Payable to the principal. When collections are made, he deducts his commissions and any expense, and remits the balance to his principal.

Books of the Principal. If the principal makes collections from customers, he will record all sales made thru the broker as regular Accounts Receivable. If the broker collects, the principal opens an account on his books with the broker only, to which all sales to customers are charged. The corresponding credit is to the Sales Account. He also credits the broker's account with commissions due and debits Selling Expense with the same amount. As money is received from the broker, his account is credited and cash is debited.

## MAIN POINTS IN THIS ASSIGNMENT

The problems used as illustrations in this assignment indicate how accounting practice must be adjusted to meet the needs of special types of business.

The special accounting features of selling agencies have been illustrated in this assignment:

Branches.
Consignments.
Merchandise Brokers.
In all three forms of trading, sales are made indirectly; that is, thru a third party, called the agent. The accounting procedure, therefore, must take into consideration two problems:

1. Two sets of records must be kept, one by the agent and one by the principal. These two records must be periodically reconciled.
2. Correct accounting must be made for inventories, which are in the possession of the agent, but are not his property.

In explaining these two special accounting features for agencies we have considered the following points:

First: Advantages of selling thru branches:
(a) Local trade can be built up.
(b) Slowly moving goods can be transferred easily between branches.
(c) Credits and collections can be controlled.

Second: Two methods of keeping books for head office:
(a) By duplicate set of books.
(b) By building up the records from periodical reports.

Third: Two problems were given to illustrate branch accounting:
(a) When goods are billed to branch at cost.
(b) Wheu goods are billed at selling price.

Fourth: When goods are billed at cost, reconciliation is made thru:
(a) Head Office Account of the branch.
(b) Branch Account of the head office.

Fifth: When goods are billed at selling price, the reconciliation is made thru:
(a) Head Office General Account of the branch.
(b) Branch General Account of the head office.

Sixth: Adjustment must be made on head office books at time of closing, for the goods shipped to the branch:
Billed values are kept in Memorandum Accounts and adjustments are made for reducing billed price to cost.
Seventh: Advantages of Consignment Sales:
(a) Consignee avoids risk for perishable goods.
(b) Consignee can run his business on a limited capital.

Eighth: Main Accounting Problems in Consignments:
(a) To provide accurate accounting for inventory.
(b) To keep accurate records so that the consignment agreement can be satisfactorily settled.
Ninth: Three parts to a consignment problem:
(a) Entries on the books of the consignee.
(b) Account Sales-Report of Consignee to Consignor.
(c) Entries on the books of the Consignor.

T'enth: Special accounting for goods sold by merchandise brokers:
(a) Commissions.
(b) Accounts Receivable (on books of principal when he collects from customers).
(c) Account with broker when he is expected to collect from customers.

## PROBLEMS TO BE SOLVED WITH THIS ASSIGNMENT

1. On page 3 of the assignment you were given transactions for the Toledo branch of the Smith Mercantile Company. It was mentioned that two other branches were established, one in Chicago and the other in Denver.

We shall now give you the transactions for the Denver branch, for January, 1922.

On January 3, 1922, the Denver branch received from the head office the following:

$$
\begin{array}{ll}
\text { Cash. } \\
\text { Merchandise (valued at cost price). } & \$ 8,000.00 \\
65,000.00
\end{array}
$$

During January the branch sold to customers on account $\$ 48,000.00$, and made cash sales amounting to $\$ 6,000.00$. During the month the branch manager collected $\$ 20,050.00$. The expenses at the branch for January, including freight, were $\$ 4,100.00$. The manager receives as salary 1 per cent of gross sales. On January 10 the manager purchased two delivery trucks at $\$ 2,000.00$ each.

On January 31 he sent $\$ 22,000.00$ to the head office. On that date he had merchandise on hand valued at $\$ 24,500.00$.

Prepare the following as your solution:
(a) Journal Entries for bringing all the January transactions in the hooks of the Denver branch.
(b) Prepare the Profit and Loss and Head Office Accounts on books of the branch after all journal entries have been posted and the books of the branch have been closed.
(c) Show the Denver Branch Account on the books of the head office as it would appear on January 31, after all entries have been made.
(d) Analyze the debit balance in the Denver Branch Account to show the assets at the branch, represented by this balance.
2. Problem 2 is based on the general situation described on page 9 of the assignment, for the company in Chicago dealing in automobile accessories. This company operates another of its branches at Atlanta, Ga. Goods are billed to the Atlanta branch on the same basis as shipments made to the Detroit branch. On May 31, 1922, the branch manager at Atlanta sent the monthly report appearing on page 27 to the head office.
(a) From this report, prepare the following ledger accounts on the books of the head office:

Goods Sent to Branch (Atlanta).
Atlanta Branch General.
(b) Prepare a statement showing the actual profit made by the Atlanta branch.

3. On page 17 of the assignment a typical consignment problem was presented. Refer to it at this time so that you will get the setting for Problem 3.
I. M. Stattler, of Chicago, also shipped pianos at selling price on consignment to A. C. Barton, a "del credere" agent, at Ames, Iowa.

On January 4, 1923, Mr. Barton received, via the C. \& N. W. R. R., a carload of pianos, of two styles:

Style A
12 @ $\$ 350.00$

Style B
6 @\$600.00

Insurance charges on this shipment amounted to $\$ 12.00$. Boxing charges were $\$ 60.00$. Both of these items were paid by Mr. Stattler on January 3.

On January 5, Mr. Barton paid $\$ 85.00$ freight and $\$ 35.00$ drayage.

During January Mr. Barton made the following sales on account:

| January 8 | 1 Style A |
| :--- | :--- |
| January 11 | 1 Style B |
| January 15 | 1 Style A |
|  | 1 Style B |
| January 23 | 2 Style A |
| January 30 | 1 Style A |

The customers paid down 25 per cent on Style A, and 20 per cent on Style B at time of purchase.

The agreement between L. M. Stattler and A. C. Barton specified that Mr. Barton was to receive a commission of 10 per cent on gross sales. The agreement also provided that Mr. Barton be allowed to deduct this commission, also freight and drayage charges paid on consigned goods, from gross sales, to determine the total amount due as shown on the account sales. At the end of each month Mr. Barton is required to remit all cash collected, less the deductions allowed by the agreement.

As your solution for this problem prepare:
(a) The account sales submitted by A. C. Barton on January 31, 1923.
(b) Using the account sales which you have set up for (a) and the facts stated in the problem, prepare the accounts for L. M. Stattler, covering all the January transactions, and the necessary adjustments for closing.

The cost of each piano shipped is as follows:

| Style A | $\$ 250.00$ |
| :--- | :--- |
| Style $B$ | $\$ 400.00$ |

# Higher Accountancy 

PRINCIPLES
PRACTICE and'
PROCEDURE

## Elements of Accounting Practice

## Assignment 29 <br> COMPARATIVE STATEMENTS

AMAN'S knowledge of other men's experience may be just as important or more important than his own limited personal experience. The main point is: How thoroly does he understand the principles, the causes and effects, behind experience which account for the results obtained-whether they lead to success or to failure?

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# LaSalle Extension University Chicago 

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet2. The Profit and Loss Statement
2. The General Ledger
3. Closing the Ledger
4. The Journal
5. Closing the Ledger by Journal Entry
6. The Cash Journal
7. Merchandise Records-The Purchase and Sales Journals
8. Subdivision of the Ledger
9. Columnization
10. Promissory Notes
11. Drafts, Acceptances, and Bills of Lading
12. Auxiliary Cash Records
13. Other Auxiliary Books and Business Papers
14. Finding, Correcting, and Preventing of Errors
15. Accrued and Deferred Items
16. Depreciation and Uncollectible Accounts
17. Partnership Accounting-Formation-Operation
18. Partnership Accounting-Dissolution Problems-JointVentures
19. Corporation Accounting-Formation-Operation
20. Corporation Accounting-Reorganizations-Mergers
21. The Voucher System
22. Factory Accounting-Manufacturing Statement
23. Factory Accounting-Perpetual Inventory-Cost Sheets
24. Classification of Accounts
25. Single Entry
26. Accounting for Nontrading Concerns
27. Agency Accounts-Branches-Consigiments
28. Comparative Statements
29. Analysis of Financial Statements-General Review

## COMPARATIVE STATEMENTS

Every person interested in a business enterprise, either as a manager, stockholder, or creditor, desires a method of determining the value of his interests or claims. One of the best ways of obtaining this information is thru the use of comparative statements.

The changes reflected in comparative statements reveal the general trend of the business and show the factors contributing to the increase or decrease of its worth. Large fortunes, great financial institutions, and the majority of business enterprises are dependent upon such certain definite sources of information as an aid in determining the steps to be taken in the future.

Comparative statements, prepared especially to reflect changes between given dates or periods, may be classed as follows:

> Comparative Balance Sheets. Comparative Profit and Loss Statements. Comparative Manufacturing Statements. Comparative Sales Reports.

Comparative statements are invaluable to business men and one of the principal mediums by which the activities of the larger branches of industry can be directed. When used in connection with graphic charts they are as essential to the progress of industry as the mariner's compass on a ship crossing the sea, since thru their use many financial difficulties may be avoided.

Purpose of Comparative Statements.-Comparative statements are prepared primarily for the use of the directors and officers, as an aid in directing future financial, sales, costs, and general policies of a company. Other purposes considered of equal importance are those for the use of stock, bond, and note holders, brokers, etc. As these arise only on special occasions they will be considered as of secondary importance. The more important uses of a single statement or a series of comparative statements are given below:

| Managerial | (lisposition of Profits. <br> Directing Future Policies. <br> Expansion and Growth. |
| :--- | :--- |
| Financial | $\left\{\begin{array}{l}\text { Bond Issues and Loans. } \\ \text { Collateral Note Financing. }\end{array}\right.$ |
| Special | Stockholders. |

Disposition of Profits.-This is undoubtedly one of the foremost features in all branches of industry organized for the purpose of making a profit. If a company realizes a fair margin of profit from the operations of a given period, the disposition of the profit is very important. For example, those
interested in the Western Manufacturing Company are advised that the surplus has increased $\$ 12,500.00$ during the year December 31, 1922, while the profit amounts to $\$ 42,500.00$. As a means of clearly illustrating these statements we show in Figure 1 a comparative balance sheet of the Western Manufacturing Company. The comparative balance sheet, analysis of the Surplus Account, and the application of funds statement must be used as a group to determine the disposition of the profits.


Figure 1. Comparative Balance Sheet
Comparative Balance Sheets-Uses.-Comparative balance sheets are essential in determining the disposition of profits and losses occurring between given dates.

In Figure 1, it will be noted that altho Cash, Accounts Receivable and Notes Receivable have, in comparison with balances of December 31, 1921, decreased in value, the inventories have increased to such an extent that the total decrease of the other accounts is absorbed, with a remaining net increase of $\$ 195,000.00$. The fixed assets have likewise increased $\$ 25$,000.00 and also the deferred charges show an increase of $\$ 2,500.00$. Referring to the current liabilities we find an increase of $\$ 210,000.00$, which denotes that the greater part of the increases in assets was due to borrowed capital. The only amount which can be accounted for from the operations of the business is the increase in the Surplus Account in the net worth section.

Analysis of Surplus.-As previously mentioned, the profit of The Western Manufacturing Company for the year 1922 amounted to $\$ 42,500.00$. The surplus has increased only $\$ 12,500.00$, hence, the balance must be accounted for. This may be accomplished thru an analysis of the Surplus Account for the year of 1922, in Figure 2, and the preparation of an application of funds statement, in Figure 3.

| THE WESTERN MANUFACTURING COMPANY ANALYSIS OF SURPLUS-YEAR ENDED DECEMBER 31, 1922 |
| :---: |
| Balance at Beginning . . . . . . . . . . . . . . . . . $\$ 180,000.00$ Add: Profit for Year . . . . . . . . . . . . . $42,500.00$ |
| Deduct: 10 per cent Cash Dividend Paid on stock issued $\$ 222,500.00$ and Outstanding at June 30, 1922 . . . . . . $30,000.00$ |
| Balance at December 31, 1922 . . . . . . . . . . . $\$ 192,500.00$ |

Figure 2. Analysis of Surplus

The Application of Funds Statement.-This is very easily constructed and is of great value in analyzing the balance sheet and profit and loss statement. It is composed of the current assets less current liabilities, to which must be added the deferred charges. The next section, funds provided, is composed of the net profit and reserve for depreciation. The funds disbursed section contains the payment of cash dividends and purchase of fixed properties, etc.

This statement permits showing the disposition of earnings thru an actual distribution among the various accounts, and presents in a condensed form the actual changes occurring during the period.

As a means of showing the application of the increase in net worth amounting to $\$ 12,500.00$, we present the following:

| THE WESTERN MANUFACTURING COMPANY <br> APPLICATION OF FUNDS STATEMENT-YEAR ENDED DECEMBER 31, 1922 |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | Increase |
| Current Assets | $\begin{gathered} 1921 \\ \$ 595,000.00 \end{gathered}$ | $\begin{gathered} 1922 \\ \$ 790,000.00 \end{gathered}$ | or Decrease $\$ 195,000.00$ |
| Current Liabilities | 375,000.00 | 585,000.00 | 210,000.00 |
|  | \$220,000.00 | \$205,000.00 | \$ 15,000.00 |
| Deferred Charges | 5,000.00 | 7,500.00 | 2,500.00 |
| Working Capital. | \$225,000.00 | \$212,500.00 | \$ 12,500.00 |
| FUNDS PROVIDED |  |  |  |
| Profit for Period <br> Reserve for Depreciation . . . . . . . . . . . . . . . . . . . . . $\$ 42,500.00$ |  |  |  |
|  |  |  |  |
| FUNDS DISBURSED ${ }^{\text {a }}$ ( $54,750.00$ |  |  |  |
| Cash Dividends . . . . . . . . . . . . . . . . . \$ $30,000.00$ |  |  |  |
| Purchase of Fixed Properties . . . . . . . 35,000.00 |  |  |  |
| Replacements Charged to Reserve for Depreciation | 2,250.00 | \$ $67,250.00$ |  |
| Decrease in Working Capital . . . . . . . . . . . . . . . . . . . . . . . . \$ 12,500.00 |  |  |  |

Figure 3. Application of Funds Statement
As shown by the application of funds statement, the profits, amounting to $\$ 42,500.00$, were expended as follows:
Cash Dividends

Part Payment on Purchase of Property $\ldots . . . . . . . .$| $\$ 30,000.00$ |
| :--- |
| $12,500.00$ |
| $\$ 42,500.00$ |

The only method of determining the disposition of profits for a given period is by the use of a comparative balance sheet, an analysis of surplus, and an application of funds statement. The surplus and application of funds statement serve merely as a medium for stating clearly the disposition of the profits earned.

The real value of comparative statements is dependent upon their use as a group, as in many instances the comparative statement of profit and loss must be used in connection with the comparative balance sheet to be of any real value. The comparative profit and loss statement will be introduced in a later section of this assignment.

Directing Future Policies.-If the management of the Western Manufacturing Company has, upon careful consideration, decided to increase sales, the comparative balance sheet would serve as an aid in determining the available working capital. The increase in net worth due to profits on a certain schedule of sales and other features would be invaluable in determining the possible increase in the sales schedule with the present capital and manufacturing equipment. This may be clearly illustrated in Figure 4.

| December 31 |  |  |
| :---: | :---: | :---: |
| Current Assets | $\begin{gathered} 1921 \\ \$ 595,000.00 \end{gathered}$ | $\begin{gathered} 1922 \\ \$ 790,000.00 \end{gathered}$ |
| Current Liabilities | 375,000.00 | 585,000.00 |
| Add: Deferred Charges | $\begin{array}{r} \$ 220,000.00 \\ 5,000.00 \end{array}$ | $\begin{array}{r} \$ 205,000.00 \\ 7,500.00 \end{array}$ |
| Total Working Capital | \$225,000.00 | \$212,500.00 |
| Net Sales | \$442,000.00 | \$540,000.00 |

Figure 4. Statement of Working Capital
During the year of 1921 the company sold $\$ 442,000.00$ of merchandise on working capital amounting to $\$ 225,000.00$. The 1922 sales amounted to $\$ 540,000.00$ on a capital of $\$ 212,500.00$. The sales increased $\$ 98,000.00$ on working capital of $\$ 12,500.00$ less than the prior year. If the corporation could sell more merchandise on a smaller amount of working capital, the impression is at once formed that a still greater increase in sales may be effected without necessitating additional working capital.

When a company retains over a period of years statistics prepared from comparative statements, the facts may be acquired concerning maximum production on a given capital, or a standard amount of capital may be determined for a certain volume of sales.

Expansion and Growth.-Altho "expansion and growth" are closely allied with "directing future policies," they may, in a measure, be dependent upon past earnings and activities. "Directing future policies" pertains to policies which may be adopted and later prove to be of no value, while "expansion and growth" usually designates an actual condition. A comparison of costs may result in discontinuing that part of the enterprise which will not yield a fair return on the time and money invested. Likewise, a comparison of departmental earnings may result in a change of the activities of a department.

An increase in schedule of sales or a change in product may also require an increase or change in plant and equipment, etc. Thus, if the Western Manufacturing Company had operated at full capacity and they now decide to double the sales for the year of 1923 and subsequent years, the plan would necessitate the purchase of additional manufacturing facilities. A comparative statement would disclose the maximum production of the present equipment and the increase in sales and profits compared with the increase in fixed properties. This does not necessarily denote that the sales must increase in proportion to the increase in fixed properties, but there is a certain significance attaching to the relationship, which, in many instances, proves to be of value.

Financing.-The financing of a corporation thru the proceeds of an issue of bonds and bank loans requires comprehensive information on three distinct phases of the business as follows:

1. History and Organization.
2. Earnings Record and Present Financial Condition.
3. Possible Future Expansion and Growth.

Items 1 and 3 require the facts obtained by the combined efforts of accountants and engineers. Item 2 is purely a matter of accounting. The earnings record is undoubtedly of far greater importance than either Item 1 or Item 3, on account of the facts which may be presented in a comparative statement of earnings covering a given period of years.

Comparative statements covering a period of years serve as a basis for determining the activities of the corporation, and reveal the period of high and low earnings, the annual interest charges, and many other important points which must be considered in selecting a conservative investment or loaning money on partial or inadequate security.

As an illustration, the Western Manufacturing Company has decided to increase its production and capacity; as a result, additional funds must be acquired. This may be accomplished thru negotiating an additional loan from their bankers, provided the bankers consider the amount of the security sufficiently large to warrant an additional loan. If this method is unsuccessful, one remaining method would be the mortgaging of the properties thru an issue of bonds. This would necessitate the preparation of comparative statements showing the earnings for a given period and the financial condition at the close.

Collateral note financing is quite common among the larger companies. Occasionally a company wishes to borrow additional funds for working capital without placing a general mortgage on the fixed properties. An adequate amount of security may be given thru an agreement by the company to maintain an average of current assets equal at all times to one and one-half the amount of the current liabilities. This plan differs from mortgage financing, as the current assets are used as collateral security for borrowing working capital. A comparative balance sheet would enable the collateral note holders to determine the average maintained over a given period of time.

Stockholders.-The owners of the corporation are desirous of learning its progress during a given period. Again the comparative statements become the predominating method of submitting these facts. With the aid of comparative and other statements the disposition of all earnings can be readily determined. By the use of these statements the stockholders may have knowledge of the disposition of all funds resulting from the operations of the period.

Preparation of Comparative Balance Sheets.-In preparing a comparative balance sheet every possible precaution must be exercised in properly classifying the amounts. Erroneous classification or lack of uniformity destroys the comparative features of the statement and renders it practically worthless. Thus, in preparing comparative balance sheets, uniform arrangement should be adopted which can be used without deviation at any given time or period. Continued errors in classification constitute a
serious difficulty in securing representative amounts, and if used for comparison or statistical purposes will result in a hindrance instead of an aid in future activities.

To illustrate this point: suppose the Accounts Receivable Account, amounting to $\$ 130,000.00$, shown in Figure 1, contained credit balances of $\$ 20,000.00$, which in reality were amounts necessitating the refund of cash, or the same as the Accounts Payable Account. The present status of Figure 1 is as follows


Assuming the $\$ 20,000.00$ is given effect in the accounts, they would then be stated as follows:


Comparing the amounts for the purpose of determining the increase and decrease, we have:

Under the Original Classification


## Under the Correct Classification



Under the original classification the total current assets have increased $\$ 195,000.00$. This is not the true condition. The actual increase is $\$ 175,-$ 000.00 , as shown under the correct classification. The item used as an illustration is comparatively small, but the same principle would apply in larger amounts.

Ordinarily the content of a balance sheet is read in groups. By this we mean that each group of assets or liabilities is considered in the total. The assets grouped under current assets are included as a total of current assets. Likewise, all current liabilities are included in a total of current liabilities. The total increase or decrease is considered in preference to the individual items composing the total. When the amounts are considered in group classification, the difference, as explained above, would not affect the comparison in the same manner as it would if it had been between individual items.

This is particularly true when the graphic chart is used in presenting the financial condition of a company at a given date. For example, suppose a company has erroneously classified a large item of stationery and office supplies as a part of the inventory. This would result in a larger amount of current assets, as compared with current liabilities, than would otherwise be stated. This would result in a gross misstatement of comparisons, which, in the event of later comparisons, would prove misleading. The following is given as an illustration of the foregoing principle as applied to the inventory of The Western Manufacturing Company at December 31, 1921.


The current assets at that date contained items amounting to $\$ 25,000.00$ which were erroneously classified. The correct amounts should be stated as follows:

| Current Assets at $12 / 31 / 1921$. . . . . . . . . . . $\$ 570,000.00$Current Liabilities at $12 / 31 / 1921$. . . . . . . . . . . $375,000.00$ |  |
| :---: | :---: |
|  |  |
| Excess of Current Assets | \$195,000.00 |

The same amount reflected in a lesser value of current assets would, of necessity, result in a greater change in the excess of current assets over current liabilities. This principle should be carefully exercised in the preparation of comparative balance sheets.

## PRACTICAL USES OF THE COMPARATIVE BALANCE SHEET

In a previous section of this assignment we pointed out the value of comparative statements as used for the following purposes:

1. Managerial
2. Financial
3. Special

We will now examine Figure 1 to see how the comparisons would be used by each of the three classes mentioned.

1. Managerial.-The management of a company is interested, primarily, in knowing the amount of profits for the year and the part retained in the business. The surplus has increased $\$ 12,500.00$, which, of course, is nominal, but shows a small amount of progress. The next important point is the reduction of debt. The debt has not been reduced. On the other hand it has increased. There must be a corresponding increase reflected in the assets. We find this to be true as the inventories and fixed assets show an increase in excess of the increase in debt. The real point involved is the inventories. Comparing the inventories at December 31, 1921, and 1922, an increase of $\$ 230,000.00$ will be noted, which, to a great extent,
serves as an offset of the increase of $\$ 210,000.00$ in current liabilities. This difference could not be properly analyzed without the aid of a comparative balance sheet.
2. Financial.-How will the changes be considered by the banker, who may be, for example, the trustee, in case of an issue of bonds or collateral notes?

The banker and other financial men usually consider the relation of the loan to the security. The notes payable in this case will be considered as loans from banks. The banker takes the statement, Figure 1, and immediately notices the increase in Accounts Payable, Notes Payable, and Accrued Wages and Taxes amounting in total to $\$ 210,000.00$, as compared with the increase of $\$ 195,000.00$ in the current assets. The security back of the loan is not as great as it was a year ago, because the banker is usually interested in those assets which may be readily converted into cash for the payments of the debts.

|  | 1921 | 1922 |
| :---: | :---: | :---: |
| Current Assets. | \$595,000.00 | \$790,000.00 |
| Current Liabilities | 375,000.00 | 585,000.00 |
| Excess of Current Assets over |  |  |
| Current Liabilities | \$220,000.00 | \$205,000.00 |

The comparative balance sheet will show the banker that the security on which he has based the loan has decreased $\$ 15,000.00$ during the past year, denoting a slight change in the situation as related to working capital.
3. Special.-What is the real value to the stockholder? The stockholder in most instances will take the same viewpoint as the management. What has been mentioned in section 1 would apply here equally as well. The stockholder is interested in knowing about the financial progress of the company during the period and the increase in the book value of the stock. This is quite natural, as the stockholder purchases the stock for the amount of dividends he may receive. If, after paying a substantial dividend, the surplus shows an increase over the previous year's balance, the stockholder has benefited in two ways, viz.,-

> By dividends paid.
> By increase in book value of the capital stock.

The comparative balance sheet (Figure 1) shows the increase in surplus to be $\$ 12,500.00$; hence it has furnished valuable information.

A balance sheet is primarily a photograph of the financial condition of a business at a given date; hence, where a company has decided to maintain a fairly uniform financial condition, or thru a legal obligation on account of losses is required to maintain a minimum excess of current assets over current liabilities, the value of comparison cannot be too strongly emphasized. Also the executive desiring to be thoroly conversant with the activities of the enterprise coming within his control can obtain the
desired facts from a planned, comprehensively prepared balance sheet. With this statement before him, he can visualize the commercial activities of the period, thus obtaining the facts without unnecessary delay.

Abnormal Financial Conditions.-During the years of 1917 and 1918 many companies contemplated the manufacture of vast quantities of war munitions and supplies, and in preparation for this work enlarged their plants, entered into contracts for large quantities of raw materials, and in general outlined extensive production programs. In many instances this was accomplished thru borrowed capital. Again it was made possible by using practically all of the working capital. This, in many instances, proved advantageous, as it required constant attention to liquidation of the assets and eliminated the necessity for excessive interest charges. This plan undoubtedly deserves commendation, but when the demand for the product was discontinued in 1919 and 1920 many concerns were overburdened with large quantities of raw materials. This necessitated a liquidation. How was this to be accomplished? By discontinuing the purchase and receipt of raw materials and reducing the stock to a normal quantity and value. This plan did not, however, remedy the condition of the fixed assets which had been affected by an almost unlimited program of construction. Thus while many corporations were able to liquidate their inventories by careful buying, the fixed properties remained at full value. This resulted in a low proportion of current assets and an exceptionally large amount of fixed assets. A comparative balance sheet would reveal these changes in the financial condition which are seemingly so important.

Comparative Profit and Loss Statements.-Having covered the requirements, form, and preparation of the comparative balance sheet, we will now show the uses of the comparative profit and loss statement.

The comparative profit and loss statement serves as a medium for comparing the operations of a company for consecutive or designated periods. The periods may be designated as annual, monthly, or cumulative. Annual profit and loss statements are designed to show the comparison between years, monthly statements as between months, and cumulative from the beginning of a period to a given date.

The real need of the comparative profit and loss statement is evidenced in its use for determining prices, eliminating waste, reducing expenses, and many other important phases of business which it serves so successfully.

As a means of introducing the proper form of a comparative profit and loss statement, we have included the use of percentages as an aid in bringing out the relationship of each of the items to the total.

Percentages and Amounts.-From this point in the assignment it will be necessary to show forms and uses of percentages; hence, a short discussion follows relative to their application in comparative statements.

The selection of a method of presentation is one for the individual. In many instances the percentage method is commendable. Again we find
many instances where amounts are preferred. From the practical viewpoint the better method calls for the unity of percentages and amounts as a means of presenting a clear, comprehensive, and analytical statement.

Percentages may be used advantageously as a means of showing the relationship of certain items to the total. They may also be used in comparing the relationship of the items for more than one year. Another very important feature is a comparison of one group with another group in the same period. Percentages are easily applied and bring about the same result obtainable by the use of actual amounts.

The Annual Profit and Loss Statement.-The comparative profit and loss statement should be prepared in a different form than the single profit and loss statement as shown in Assignment 2. This is due to the "Increase or Decrease" column which is usually shown on a comparative statement. A comparative profit and loss statement extending over a period of two years is shown in Figure 5.

Figure 5 is prepared on the group-total plan. That is, the cost of sales, selling, and general and administrative expenses are treated as individual amounts.

When a comparative profit and loss statement is prepared, the points of most interest are the increases and decreases and the percentages of cost to the total. The basis of percentages is the amount of net sales. This can best be illustrated by the use of the following formula:

$$
\frac{1.00}{\text { Net Sales }}=\text { the reciprocal } \times \text { amount of the costs or expenses }=\text { percentage } .
$$

Applying this formula to Figure 5, 1922 column, we have:
1.00
$\frac{1.00}{\$ 540,000.00}=.000001851$
$\$ 280,000.00 \times .00000185=51.85 \%$
Proving this formula we have the following:
$\$ 280,000.00 \div \$ 540,000.00=51.85 \%$
The percentages of one item or a group of items to the net sales may be derived from a single year's statement; that it, without use of the comparison. Some of the most interesting facts are presented in the increase or decrease column.

Comparative Manufacturing Statement.-The cost of manufacturing schedule is used in connection with the following statements:

Figure 5. Comparative Statement of Profit and Loss for the Years Ending December 31, 1.921, and 1922.
Figure 7. Comparative Statement of Profit and Loss for the Years Ending December 31, 1921, and 1922.

| THE WESTERN MANUFACTURING COMPANY <br> COMPARATIVE PROFIT AND LOSS STATEMENT-YEARS ENDING DECEMBER 31, 1921, AND 1922 |  |  |
| :---: | :---: | :---: |
| $\underset{\text { Less Returns and Aliowances } \text {. . . . . . . . . . . . } \$ 850,000.00}{1921}$ | $\begin{array}{r} 1922 \\ \$ 550,000.00 \\ 10,000.00 \end{array}$ | Increase or <br> *Decrease $\$ 100,000.00$ 2,000.00 |
| NET SALES . . . . . . . . . . . . . . . . . . . . . \$442,000.00 | \$540,000.00 | \$ 98,000.00 |
| Cost of Sales (Pigure 6) . . . . . . . . . . . . $225,000.00$ | $280,000.00$ 51.85 | 55,000.00 |
| Per cent to Net Sales . . . . . . . . . . . . . . 50.9 | 51.85 |  |
|  | $\begin{gathered} \$ 260,000.00 \\ 48.15 \end{gathered}$ | \$ 43,000.00 |
| SELLING EXPENSES |  |  |
| Salesmen's Salaries . . . . . . . . . . . . . . . \$ 23,000.00 | \$ 20,000.00 | \$ *3,000.00 |
| Commissions . . . . . . . . . . . . . . . . . 44,200.00 | $54,000.00$ | 9,800.00 |
| Traveling . . . . . . . . . . . . . . . . . $15,000.00$ | 10,000.00 | *5,000.00 |
| Freight-0ut . . . . . . . . . . . . . . . . . . 18,000.00 | 20,000.00 | 2,000.00 |
| Shipping and Delivery . . . . . . . . . . . . 22,000.00 | 27,000.00 | 5,000.00 |
| Total Selling Expense . . . . . . . . . . . . . $\$ 122,200.00$ | \$131,000.00 | \$ 8,800.00 |
| Per cent to Net Sales . . . . . . . . . . . 27.65 | 24.26 |  |
| Net Trading Profit . . . . . . . . . . . . . . . . \$ 94,800.00 | \$129,000.00 | \$ $34,200.00$ |
| Per cent to Net Sales . . . . . . . . . . . . 21.45 |  |  |
| GENERAL AND ADMINISTRATIVE EXPENSES |  |  |
| Executive Salaries . . . . . . . . . . . . . . . . \$ 25,000.00 | \$ 30,000.00 | \$ 5,000.00 |
| Office Salaries. . . . . . . . . . . . . . . . . . 40,000.00 | 50,000.00 | 10,000.00 |
| Telephone and Telegraph . . . . . . . . . . 1,100.00 | 1,200.00 | 100.00 |
| Stationery and Postage . . . . . . . . . . . . . ${ }^{\text {2,500.00 }}$ | 2,800.00 | 300.00 |
| Miscellaneous . . . . . . . . . . . . . . . . 5,000.00 | 6,500.00 | 1,500.00 |
| Total General and Administrative Expenses . . . . \$ $73,600.00$ Per cent to Net Sales . . . . . . . . . . 16.65 | $\begin{gathered} \$ 90,500.00 \\ 16.76 \end{gathered}$ | \$ 16,900.00* |
| Net Profit from Operations . . . . . . . . . . . . \$ 21,200.00 | \$ $38,500.00$ | \$ 17,300.00 |
| Per cent to Net Sales . . . . . . . . . . . . . 4.80 | 7.13 |  |
| OTHER INCOME |  |  |
| Interest Received . . . . . . . . . . . . . . . \$ 2,000.00 | \$ 3,000.00 | \$ 1,000.00 |
| Discourt Received . . . . . . . . . . . . $12,000.00$ | 17,000.00 | 5,000.00 |
| Total Other Income . . . . . . . . . . . . . . . . \$ 14,000.00 | \$ $20,000.00$ | \$ 6,000.00 |
| \$ 35,200.00 | \$ 58,500.00 | \$ $23,300.00$ |
| EXPENSES |  |  |
| Interest Paid . . . . . . . . . . . . . . . . . . \$ 9,000.00 | \$ 12,000.00 | \$ 3,000.00 |
| Discount Allowed . . . . . . . . . . . . . . 4,500.00 | 4,000.00 | *500.00 |
| Total Other Expenses . . . . . . . . . . . . . . . \$ 13,500.00 | \$ 16,000.00 | \$ 2,500.00 |
| Net Profit for Period (Figure 2) . . . . . . . . \$ 21,700.00 | \$ $42,500,00$ | \$ $20,800.00$ |

Figure 5. Comparative Profit and Loss Statement

In presenting the proper arrangement of a manufacturing statement and the relationship of the items of which it is composed, we have prepared the following schedule, setting forth in detail the various items composing the total cost of sales shown in the various cases to which reference was formerly made in the text.

The value of a supporting statement of this nature and description is inestimable, in that all the details are confined to the schedule, the total only being transferred to the principal statement. The details of this statement may be included in the cost of sales section of the comparative profit and loss statement, provided they are not too numerous. In the case presented this would not be advisable.

| THE WESTERN MANUFACTURING COMPANY COMPARATIVE MANUFACTURING AND COST OF SALES STATEMENT -YEARS ENDING DECEMBER 31, 1921, AND 1922 |  |  |
| :---: | :---: | :---: |
| 1921 | 1922 | Increase or <br> *Decrease |
| Inventory of raw materials at beginning of period. \$100,000.00 | \$200,000.00 | \$100,000.00 |
| Purchases . . . . . . . . . . . . . . . . 195,000.00 | 345,000.00 | 150,000.00 |
| Freight Inbound . . . . . . . . . . . . . . . 15,000.00 | 20,000.00 | 5,000.00 |
| Total . . . . . . . $\$ 310,000.00$ | \$565,000.00 | \$255,000.00 |
| Deduct Raw Material Inventory at End of Period . . . 200,000.00 | 450,000.00 | 250,000.00 |
| Cost of Raw Materials Used . . . . . . . . . . . . $\$ 110,000.00$ | \$115,000.00 | \$ 5,000.00 |
| Productive Labor . . . . . . . . . . . . . . . . . 64,000.00 | 79,000.00 | 15,000.00 |
| Prime Cost of Goods Manufactured . . . . . ... . 174,000.00 | 194,000.00 | 20,000.00 |
| MANUFACTURING EXPENSES |  |  |
| Superintendence . . . . . . . . . . . . . . . \$ 5,000.00 | \$ 6,000.00 | \$ 1,000.00 |
| Nonproductive Labor . . . . . . . . . . . . . 15,000.00 | 17,500.00 | 2,500.00 |
| Heat, Light, and Power . . . . . . . . . . . 9,000.00 | 10,500.00 | 1,500.00 |
| Taxes (Real and Personal) . . . . . . . . . . . 5,500.00 | 6,000.00 | 500.00 |
| Insurance . . . . . . . . . . . . . . . . . 2,000.00 | 2,500.00 | 500.00 |
| Depreciation . . . . . . . . . . . . . . . . 11,500.00 | 12,250.00 | 750.00 |
| Repairs and Maintenance . . . . . . . . . . . . 4,000.00 | 4,500.00 | 500.00 |
| Factory Supplies . . . . . . . . . . . . . 2,000.00 | 3,000.00 | 1,000.00 |
| Miscellaneous Factory Expense . . . . . . . . 2,000.00 | 3,750.00 | 1,750.00 |
| Total Manufacturing Expenses . . . . . . . . . $\$ 56,000.00$ | \$ $66,000.00$ | \$ $10,000.00$ |
| Add: Inventory of work in Process at Beginning of Period . . . . . . . . . . . . . . . . . . . . $135,000.00$ | 150,000.00 | 15,000.00 |
| ( $\$ 365,000.00$ | \$410,000.00 | \$ $45,000.00$ |
| Deduct: Inventory of Work in Process at Close of Period . . . . . . . . . . . . . . . . . . . . . . $150,000.00$ | 100,000.00 | *50,000.00 |
| Cost of Goods Manufactured . . . . . . . . . . . $\$ 215,000,00$ | \$310,000.00 | \$ $95,000.00$ |
| Add: Inventory of Finished Goods at Beginning of Period . . . . . . . . . . . . . . . . . . . . . $60,000.00$ | 50,000.00 | *10,000.00 |
| Total . . . . . . . . . . . . . . . . . . $\$ 275,000.00$ | \$360,000.00 | \$ $85,000.00$ |
| Deduct: Inventory of Finished Goods at End of Period . . . . . . . . . . . . . . . . . . . . $50,000.00$ | 80,000.00 | 30,000.00 |
| Cost of Sales. . . . . . . . . . . . . . . $\$ 225,000.00$ | \$280,000.00 | \$ $55,000.00$ |

Figure 6. Comparative Manufacturing and Cost of Sales Statement

A majority of the companies operating on industrial lines are organized for profit. Any increase or decrease affecting net profit should be explained. In Figure 5, the changes may be explained as follows:

Sales and Cost of Sales. 1. Sales increased $\$ 100,000.00$, which is probably the result of a change in economic conditions or sales policies.
2. Cost of Sales increased $\$ 55,000.00$.

Figure 6 furnishes the amounts comprising this increase.
ANALYSIS OF INCREASE OF COST OP SALES


Figure 5 shows the percentage of cost of sales to net sales as 50.9 for 1921 and 51.85 for 1922. This shows that the cost has actually advanced . 95 , or less than 1 per cent.

The Selling Expenses.-The selling expenses show the following changes:

1. Salesmen's salaries have decreased $\$ 3,000.00$. This may be due to the liberal commission policy which the company had adopted and, because of this, decided to reduce the salaries. It may be due to a desire to gradually work toward a straight commission basis.
2. Commissions have increased in proportion to the increase in sales.
3. Traveling expenses have decreased $\$ 5,000.00$ altho the sales increased $\$ 100,000.00$. This indicates a favorable condition, as the company is able to market a larger amount of product on a smaller expenditure of traveling expenses. This may also denote an increase in orders by mail.
4. Freight-out and shipping and delivery increased $\$ 2,000.00$ and $\$ 5,000.00$ respectively, which is favorable with an increase in sales.
The general and administrative expenses have increased $\$ 16,900.00$, composed of the following items:
5. The executives' salaries increased $\$ 5,000.00$. This is purely a point of the policy of the board of directors.
6. The office saluries increased $\$ 10,000.00$, which is in accordance with the extra work brought about thru the increase in sales.
7. The increase in telephone and telegraph and miscellaneous expenses is nominal and is of little importance as compared with the other items.
Other Income and Expenses.-The increases or decreases in other income and expenses are of less importance than those connected with the
operations. The amount of discounts allowed is dependent upon the discounting policies adopted by the trade. Likewise, the amount of discounts received is dependent upon the policy of the Western Manufacturing Company. Discounts allowed or received cannot be based on sales or purchases. They are contingent upon the financial policies of the seller and buyer.

Value of the Comparisons.-We have carefully explained the increases or decreases appearing in the comparative profit and loss statement, and will now consider the value of the comparisons.

1. The sales increased 22.2 per cent.
2. The cost increased from 50.90 per cent of net sales to 51.85 per cent. We have previously explained this increase as due to the increase in cost of materials, labor, etc.
3. The selling expenses decreased from 27.65 per cent of net sales to 24.26 per cent, or 3.39 per cent of the net sales. This denotes a possible increase of sales thru orders by mail or the result of a better sales force.
4. The general and administrative expenses increased .11 per cent, which has no real importance.
5. The net profit from operations increased 2.33 per cent of net sales, proving that a larger volume of sales will also produce a corresponding increase on the margin of profit.

Regardless of the use of the statement, the facts aforementioned are of vital interest. They show clearly that the cost of goods is nearly standardized, that the selling expenses may be reduced in per cent to total by a larger volume of sales, and that the general and administrative expenses are subject to slight fluctuation and may have reached the maximum amount.

In Figure 7, we show a form of annual comparative statement illustrating the percentage relation of each class of expense to the group total. All computations in this statement are based on net sales.

This statement is of especial value where an analysis of each group is desired. In Figure 5 we considered each group as a total. Where the banker, the management, or the stockholder desires to analyze the per cent of each to the net sales, this statement will be of greater value. The percentages are shown individually; hence, the information is now available for their use.

The detailed percentage statement is not always necessary, but where a condition arises similar to that outlined above it should be substituted in place of the form given in Figure 5. The reader should be governed by the requirements of his particular case.

Many people become confused when they are reviewing comparative statements. This is due to the vast amount of detail included in the statement. This confusion may be avoided by the use of a summary, which tends to bring out only the very important factors. This form of statement is easily constructed, easily read, and might be stated as self-explanatory. It is of especial value to the busy executive, banker, and others who desire only concrete information.
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THE WESTERN MANUFACTURING COMPANY
COMPARATIVE PROFIT AND LOSS STATEMENT－YEARS ENDING

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$\dot{1}$ OFIT AND LOSS STATEMENT－YEARS
DECEMBER 31，1921，AND 1922


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Salesmen＇s Salaries．
Commissions
Traveling
Freight Out
Shipping and Delivery
Total Selling Expense
GENERAL AND ADMINISTRATIVE EXPENSES
Executive Salaries

$\underset{\sim}{\infty} \dot{\sim}$
 $\$ 14,000.00$ $00^{\circ} 00 Z^{\prime} 9 \varepsilon \$$ $\$ \quad 9,000.00$
$4,500.00$ 00．00G＇EL \＄ $\$ 21,700.00$
Net Profit for Period

## INCOME CHARGES

Interest Expense

Collecting the items appearing in Figure 5 we have the following summary:

SUMMARY OF INCREASES

| Increase in Net Sales | \$ 98,000.00 |
| :---: | :---: |
| Increase in Cost of Sales | 55,000.00 |
| Increase in Gross Profit from operations | \$ 43,000.00 |
| Increase in Selling Expenses | 8,800.00 |
| Increase in Net Trading Profit | \$ 34,200.00 |
| Increase in General and Administrative Expenses | 16,900.00 |
| Increase in Net Profit from Operations | \$ 17,300.00 |
| Increase in Other Income-Net | 3,500.00 |
| Increase in Net Profit for Period | \$ $20,800.00$ |

Two very important facts are presented in this summary:

1. Selling expense is to an extent predetermined in character, that is, it does not fluctuate in proportion to the sales.
2. A consistent policy of discounting purchases is now in effect.

It is interesting to learn from the foregoing summary of increases that $\$ 98,000.00$ increase in sales produced an increase in net profits from operations amounting to $\$ 17,300.00$. This was due to an increase in cost of sales amounting to $\$ 55,000.00$, selling expenses, $\$ 8,800.00$, and general and administrative expenses, $\$ 16,900.00$. Why is this of special importance? It brings out clearly the fact that a company must maintain a certain operating expense, and that it is possible to increase the volume of sales without adding a proportionate amount to the selling and administrative expenses.

In many instances the question arises concerning the value of comparison. Comparison not only discloses the amount of the increases and decreases, but also portrays the relative importance of the items: viz., it shows the increase of an expense to be in proportion to an increase in production or sales, or it shows the increase in expense to be entirely out of proportion to the increase in sales.

Comparison between years or periods has certain values in price fixing which are of especial importance. The management of the Western Manufacturing Company is contemplating a reduction of costs prior to a possible adjustment of selling prices. The cost of sales statement, Figure 6, discloses the items of cost which might be reduced in part, also those which would remain fixed regardless of the fluctuation in sales. This refers to depreciation, taxes, insurance, and other similar items. It would also disclose the tendency to increase certain elements of cost entirely out of proportion to the fluctuation of sales. Thus, if the management ascertained that the costs were entirely too high an attempt should be made to reduce them to a normal basis. The use of percentages to the total serves as a valuable aid in standardizing the costs of the various materials and expenses used in production.

The prirciple underlying the analysis of the elements of cost also applies to the selling and general administrative expenses. Where an expense has increased without a valid reason, the increase should be investigated to determine if it is necessary, or if there is a way to reduce it
to a normal basis. The comparative statement would aid materially in the control of expenses due to the changes disclosed in the "Increase or Decrease" columns.

Cumulative Comparative Profit and Loss Statement.-What has been said regarding the value of annual comparisons applies to the cumulative comparison. By this is meant the comparison of operations for two or more months, or the operations from the beginning of the period to the date of comparison.

The Western Manufacturing Company realized a profit of $\$ 42,500.00$ for the year. This does not mean that one-twelfth was earned each month. This is the ordinary conception of an annual profit. This is, of course, misleading where a company has a seasonal business, or when, during certain months of the year, the earnings are below the average.

In many instances the subnormal months or conditions may be discovered by the use of cumulative comparative statements. They also show the amount of merchandise required to produce a given volume of sales. Likewise, they may denote a period of the year when a normal stock of merchandise would be unnecessary on account of the subnormal turnover. The form of this statement is shown under Figure 8.

| WESTERN MANUFACTURING COMPANY |
| ---: | :--- |

Figure 8. Cumulative Comparative Profit and Loss Statement

The value of this statement is based solely on its use in showing the trend of the business before the close of the year. It usually is prepared for the use of the management and is generally considered of most importance when used in a like capacity. The comparison is similar to that of the annual statements, the only difference being in the period of time over which it extends. The preparation and use of this statement is of course dependent upon the general accounting policies of the company; viz., the inventory records, closing the books, etc.

The analysis of a statement does not consist in merely locating the small differences. The comparison sets forth clearly all differences contributing to the ultimate increase or decrease, and all stress should be centered on those items which represent the greater part of the total.

Reading a financial statement, considering the comparisons, understanding their relationship to the other accounts, and planning for the future on experience of the past are all highly valued factors in the business training which the successful financial executive should obtain.

A few facts may be readily obtained from Figure 8, covering the tenmonth period ended October 31, 1921. The profit amounted to $\$ 18,550.00$ as compared with $\$ 34,610.00$ for the same period of 1922 . The net profit of $\$ 18,550.00$ for the ten months ended October 31, 1921, was equivalent to 4.7 per cent of the net sales, while the profit for the same period of 1922 , amounting to $\$ 34,610.00$, was equivalent to 7.6 per cent of the net sales. The real value obtained from the cumulative amounts, taken from the totals thus ascertained, serves as a basis for estimating the annual result, and may be used with a certain degree of accuracy.

The items comprising the greater part of the increase in cost and expenses, as shown in Figure 8, may be summarized as follows:
Cost of Sales . . . . . . . . . . . . . . . . . . . . .
Commissions
Executive Salaries . . . . . . . . . . . . . . . . . . . . . .

Due consideration must be given to each, in the order in which they appear above. The percentage costs of sales for the two ten-month periods are given below:
Ten Months Ending October 31, 1921. . . . . . . . . . . . . $52.5 \%$
Ten Months Ending October 31, 1922. . . . . . . . . . . . . 51.6
Decrease. . . . . . . . . . . . . . . . . . . . . . . . . . $\quad .9 \%$

The commissions increased in the same proportion as the sales; hence this does not affect the ultimate result.

The executive salaries for the two ten-month periods are:
Ten Months Ended October 31, 1921 . . . . . . . . . . . . . . $5.3 \%$
Ten Months Ended October 31, 1922. . . . . . . . . . . . .
Increase. . . . . . . . . . . . . . . . . . . . . . . . . . .

The office salaries for the two ten-month periods are:
Ten Months Ended October 31, 1921 . . . . . . . . . . . . . . $8.6 \%$
Ten Months Ended October 31, 1922 . . . . . . . . . ${ }^{9.2}$
Increase . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{6 \%}$

If due care has been given to the points outlined, it is easily seen that a means of bettering the condition, as brought before the management of the Western Manufacturing Company, would be to reduce the salaries to conform to a standard based on previous amounts. This may be impossible, much less practical, to maintain the height of efficiency; hence, this problem is one to be solved by the management. In any event, the facts have been placed before the management by the use of the comparative profit and loss statement.

Departmental Comparative Profit and Loss Statements.-Many of the large industries are divided into distinct units known as "departments." In some instances these departments represent a medium for producing a completed article, while in others only a part of the work is performed. In either event the business may be departmentalized to such an extent that the results of each department may be obtained. It has been truthfully said, "A chain is no stronger than its weakest link." If a company is operating one or more departments at a loss, the best plan would be either to remedy the condition or discontinue that part of the product. This of course is a problem for the management. A comparison may be made of the same for different periods as outlined in Figure 9.

| WESTERN MANUFACTURING COMPANY COMPARATIVE DEPARTMENTAL PROFIT AND LOSS STATEMENT YEARS ENDING DECEMBER 31, 1921, AND 1922 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 1921 \\ \text { Department } \\ \text { B } \end{gathered}$ | $\underset{\text { Department }}{1922}$ | $\begin{aligned} & \text { Increase } \\ & \text { or } \\ & \text { *Decrease } \end{aligned}$ | Per Cent Increase or *Decrease |
| SALES | \$320,000.00 | \$360,000.00 | \$40,000.00 | 12.5 |
| Less Returns and Allowances | 6,000.00 | 7,000.00 | 1,000.00 | 16.7 |
| Net Sales | \$314,000.00 | \$353,000.00 | \$39,000.00 | 12.4 |
| COST OP SALES | 170,000.00 | 180,000.00 | 10,000.00 | 5.9 |
| SELLING EXPENSE |  |  |  |  |
|  |  |  |  |  |
| Salesmen's Salaries | \$ 15,000.00 | \$ 13,000.00 | \$*2,000.00 | *13.3 |
| Commissions | 29,400.00 | 35,300.00 | 5,900.00 | 20.1 |
| Traveling | 9,000.00 | 6,000.00 | *3,000.00 | *33.3 |
| Freight-Out | 13,500.00 | 14,000.00 | 500.00 | 3.7 |
| Shipping and Delivery | 12,500.00 | 18,000.00 | 5,500.00 | 44. |
| Total Selling Expense | \$ 79,400.00 | \$ $86,300.00$ | \$ 6,900.00 | 8.7 |
| Net Trading Profit. | \$ 64,600.00 | \$ 86,700.00 | \$22,700.00 | 34.2 |
| GENERAL AID ADMINISTRATIVE EXPENSES |  |  |  |  |
| Executive Salaries. | \$ 18,000.00 | \$ 22,000.00 | \$ 4,000.00 | 22.2 |
| Office Salaries | 25,000.00 | 35,000.00 | 10,000.00 | 40. |
| Telephone and Telegraph | 700.00 | 800.00 | 100.00 | 14.3 |
| Stationery and Supplies | 1,600.00 | 1,800.00 | 200.00 | 12.5 |
| Miscellaneous | 3,200.00 | 4,300.00 | 1,100.00 | 34.4 |
| Total General and Administrative Expense | \$ 48,500.00 | \$ 63,900.00 | \$15,400.00 | 31.7 |
| Net Profit from Operations. <br> *Decrease | $\$ 16,100.00$ | \$ $22,800.00$ | \$ 6,700.00 | 41.6 |

Figure 9. Comparative Departmental Profit and Loss Statement

The comparison, as shown in Figure 9, furnishes information relative to the earning capacity of Department B. It shows the increase of Department B during 1922 over Department B during 1921. The increase of Department B during 1922 over Department B during 1921 is a valuable feature, serving the same purpose as the comparison of one year with another in the annual profit and loss statement. The value of this form of comparative statement is dependent upon the desire of the management, and the general plan and layout of the business.

Comparative Sales Reports.-Comparative sales reports are of special value when used in conjunction with the other statements. They show the trend of sales over a.period of time, and may be used to advantage in putting on a sales campaign, fixing commissions on sales, and other important points involved in the management of a company. One advantage of the sales report is the usual plan of showing the sales over a greater number of years, months, or other periods than would ordinarily be covered by a comparative profit and loss statement.

Cost of sales and gross profit may be shown in connection with the sales report. The sales report, further illustrated by the use of the graphic chart, forms a very interesting report for the management. This may be prepared monthly, semi-annually, or annually.

The following amounts taken from the accounts of the Western Manufacturing Company will serve as a basis for illustrating the use of these statements.


The above amounts would be stated on a graphic chart as shown in Figure 10.

The graphic chart presents an actual condition which existed after the close of the War. During the year of 1919 many companies engaged in the manufacture of war products suffered a decline in sales due to cancellation of contracts by the U.S. government. Other lines of business declined on account of the demand being far below normal. This condition continued thruout 1919 and 1921. The year of 1921 brought a nominal increase, which continued during the year of 1922. In considering the facts presented in this statement the reader should review the economic conditions prevailing during the years of 1918 to 1922 inclusive.

The graphic chart presented in this assignment should be compared with the amounts submitted prior to the chart, and these amounts should be traced carefully thruout the entire period. The numbers ranging from 1 to 580 shown at the left of the chart denote amounts in thousands. The heavy vertical line at the right of the year is used as the basis for charting the facts for the year.

## WESTERN MANUFACTURING COMPANY sales cost of sales AND GROSS PROFIT



Figure 10. Chart showing comparative sales report for five years

Using the Information.-The real value of comparative statements is reflected in their uses. The trend of the business is very important. Estimating for the future is also very important.

We have learned how the statements are prepared, also how the percentages are computed. We have found the percentages for the years of 1921 and 1922 to be as follows:
Cost of Sales . . . . . . . . . . . . . . . . . . . . . . . .
Cost of Selling
General and Administrative Cost
Net Profit from Operations
N

We have determined the percentages of the cost, selling expenses, and general and administrative expenses. This information is placed before the management, when they plan ahead for the year of 1923.

They wish to determine the approximate cost, selling, general and administrative expenses, and profit based on annual sales of $\$ 700,000.00$. This can be accomplished by the following method, using the percentages of 1922 as the basis:


This is purely an estimate, but it illustrates the value of this information as an aid in determining the future policies and activities of the company.

## MAIN POINTS OF THIS ASSIGNMENT

The more important points outlined in this assignment are now summarized as an aid in a general review.

First: Comparative statements of the more important type are divided into four groups.

Comparative Balance Sheets.
Comparative Profit and Loss Statements.
Comparative Manufacturing Statements.
Comparative Sales Reports.
Second: Comparative statements are prepared primarily for the use of the management as an aid in directing future financial, sales, costs, and general policies of a corporation. This with other added features is outlined in the following summary.

| Managerial | $\left\{\begin{array}{l}\text { Disposition of profits. } \\ \text { Directing Future Policies. } \\ \text { Expansion and Growth. }\end{array}\right.$ |
| :--- | :--- |
| Financial | $\left\{\begin{array}{l}\text { Bond Issues and Loans. } \\ \text { Collateral Note Financing. }\end{array}\right.$ |
| Special | Stockholders. |

Third: Disposition of profits by use of a comparative balance sheet may be allocated thru the medium of an analysis of surplus, and application of funds statement.
Fourth: The real worth of a comparative balance sheet is dependent upon the classification of the different accounts of which it is composed.
Fifth: In reading financial statements the entire group should be read simultaneously in order that all facts may be determined. This usually necessitates the preparation of a balance sheet, analysis of surplus, and a profit and loss statement.
Sixth: Profit and loss statements may be classified as follows:

| Annual | Cumulative |
| :--- | :--- |
| Monthly | Departmental |

Seventh: Certain classes of expenses are of a fixed nature and do not fluctuate proportionately to the sales.
Eighth: Reading a financial statement, considering the comparisons, understanding their relationship to the other accounts, planning for the future on experience of the past, are all highly valued points in business training which the successful financial executive should possess.
Ninth: The real worth of any comparative statement is dependent upon the preparation and the knowledge of the individual.
Tenth: Percentages may be substituted in place of amounts and, in many instances, may be more flexible in their application. The use is dependent upon this condition and the selection should be made with this point in mind.

Eleventh: Sales reports are equally important to the management and, when used in conjunction with a graphic chart, are a clearer illustration of the trend of the business.
Twelfth: Future profits may be estimated on a predetermined sales program by using the percentages of the various elements as shown by a comparative statement for the previous year, or on an average over a group of years.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 29

Prepare and send in solutions for all of the following problems:
(1) The trial balances of the Clark Mercantile Company at December 31, 1921, and 1922, are submitted herewith.


In addition the following items are submitted:
December 31, 1921 December 31, 1922
\$150,000.00
500.00

2,000.00
\$165,000.00
700.00

2,200.00

Merchandise Inventory
Office Supplies and Stationery Unexpired Insurance

9,500.00
. 00
10,000.00
65,500.00
15,000.00
15,000.00
20,000.00 1,800.00
500.00

4,200.00
12,000.00
6,000.00
3,000.00
$10,500.00$
808,000.00
,000.00
65,000.00
19,100.00
3,500.00
15,000.00
,000.00
3,700.00
7,800.00
2,700.00
1,100.00
6,300.00
4,200.00

55,000.00
5,500.00
3,000.00
18,000.00
139,100.00
1,166,600.00
$\$ 1,552,200.00$

From the foregoing facts prepare:
(a) Comparative balance sheet.
(b) Comparative profit and loss statement with detailed percentages.
(2) The Milton Automobile Company earned a substantial profit during the calendar year of 1922. The management presents the following balance sheet and other data concerning the operations for the purpose of ascertaining the disposition of the earnings.

## MILTON AUTOMOBILE COMPANY COMPARATIVE BALANCE SHEET AT DECEMBER 31, 1921, AND 1922

| ASSETS | 1921 | 1922 |
| :---: | :---: | :---: |
| Cash | \$ $15,000.00$ | \$ 12,000.00 |
| Deposits with Manufacturers | 50,000.00 | 60,000.00 |
| Accounts Receivable | 155,000.00 | 170,000.00 |
| Notes Receivable | 300,000.00 | 315,000.00 |
| Inventories |  |  |
| New Cars. | 60,000.00 | 55,000.00 |
| Used Cars | 50,000.00 | 60,000.00 |
| Repair Parts. | 25,000.00 | 20,000.00 |
| Oil, Grease and Supplies. | 5,000.00 | 3,000.00 |
| Land. | 20,000.00 | 20,000.00 |
| Building. | 80,000.00 | 85,000.00 |
| Salesroom and Garage Equipment. | 20,000.00 | 30,000.00 |
| Office Furniture and Fixtures. | 5,000.00 | 5,000.00 |
| Prepaid Insurance | 1,000.00 | 1,200.00 |
|  | \$786,000.00 | \$836,200.00 |
| LIABILITIES |  |  |
| Notes Payable | \$ 30,000.00 | \$ $20,000.00$ |
| Accounts Payable | 10,000.00 | 12,000.00 |
| Accrued Wages and Taxes | 6,000.00 | 6,200.00 |
| Reserve for Depreciation | 18,000.00 | 22,100.00 |
| Capital Stock. | 500,000.00 | 500,000.00 |
| Surplus. | 222,000.00 | 275,900.00 |
|  | \$786,000.00 | \$836,200.00 |
| ANALYSIS OF SURPLUS ACCOUNT, | CEMBER 31, 19 |  |
| Balance at Beginning | - . . . . . | \$222,000.00 |
| Profit for Period | . . . . . . | 73,900.00 |
|  |  | \$295,900.00 |
| Cash Dividends Paid. . . . . . . . | . | 20,000.00 |
| Balance at Close | -•••• | \$275,900.00 |

From the foregoing you are requested to prepare:
(a) A properly classified balance sheet.
(b) An application of funds statement.
(3) The Tilman Manufacturing Company has operated a new department for the past two years and submits the following data relative to the results of this division, known as Department $B$.

# TILMAN MANUFACTURING COMPANY <br> DETAILS IN FACTORY LEDGER, DEPARTMENT B, FOR YEARS ENDING DECEMBER 31, 1921, AND 1922 

|  | 1921 | 1922 |
| :---: | :---: | :---: |
| Material Purchased-Lumber | \$125,000.00 | \$150,000.00 |
| Material Purchased-Veneer | 25,000.00 | 30,000.00 |
| Material Purchased-Hardware | 10,000.00 | 12,000.00 |
| Material Purchased-Paint and Varnish | 7,500.00 | 10,000.00 |
| Naterial Purchased-Sundries | 5,000.00 | 7,000.00 |
| Labor-Productive | 50,000.00 | 65,000.00 |
| Labor-Nonproductive | 10,000.00 | 15,000.00 |
| Pactory Supplies. | 5,000.00 | 7,000.00 |
| Taxes-Real and Personal Property | 700.00 | 750.00 |
| Insurance | 500.00 | 600.00 |
| Depreciation. | 1,500.00 | 1,600.00 |
| Repairs. . | 800.00 | 1,100.00 |
| Miscellaneous . . . . | 500.00 | 1,000.00 |

The following information on sales and inventories is also submitted:


Taking into consideration the foregoing facts you are requested to prepare:
(a) Comparative manufacturing and cost of sales statement.
(b) In addition to the information outlined you are told the selling expenses were 5 per cent and 6 per cent and the administrative expenses were 8 per cent and 9 per cent for the respective years. Calculate the net operating profit for the years of 1921 and 1922, also approximate the profit for 1923 based on sales of $\$ 900,000.00$ and percentages computed for 1922.
-
-

# Higher Accountancy 

PRINCIPLES
PRACTICE and
PROCEDURE

## Elements of Accounting Practice

Assig̀nment 30 ANALYSIS OF FINANCIAL STATEMENTS
GENERAL REVIEW

ONE of the most pitiful and biggest problems of business is the man who stands still; he is almost always the man not willing to make the personal sacrifice which study requires but which always pays dividends in the long run.
C. M. LEMPERLY

Advertising Manager. The Sherwin-Williams Co. Cleveland, Ohio

## LaSalle Extension University <br> Chicago

## ASSIGNMENTS IN

## ELEMENTS OF ACCOUNTING PRACTICE

The following are the subjects covered in the first section of the course. In bold-faced type are the lessons you now have on hand. Printed in lighter type are those yet to come. They will be mailed to you regularly about once a month in lots of five. Should you be able to handle them more rapidly, the University will send them faster on request.

1. The Balance Sheet
2. The Profit and Loss Statement
3. The General Ledger
4. Closing the Ledger
5. The Journal
6. Closing the Ledger by Journal Entry
7. The Cash Journal
8. Merchandise Records-The Purchase and Sales Journals
9. Subdivision of the Ledger
10. Columnization
11. Promissory Notes
12. Drafts, Acceptances, and Bills of Lading
13. Auxiliary Cash Records
14. Other Auxiliary Books and Business Papers
15. Finding, Correcting, and Preventing of Errors
16. Accrued and Deferred Items
17. Depreciation and Uncollectible Accounts
18. Partnership Accounting-Formation-Operation
19. Partnership Accounting-Dissolution Problems-Joint Ventures
20. Corporation Accounting-Formation-Operation
21. Corporation Accounting-Reorganizations-Mergers
22. The Voucher System
23. Factory Accounting-Manufacturing Statement
24. Factory Accounting-Perpetual Inventory-Cost Sheets
25. Classification of Accounts
26. Single Entry
27. Accounting for Nontrading Concerns
28. Agency Accounts-Branches-Consignments
29. Comparative Statements
30. Analysis of Financial Statements-General Review

## ANALYSIS OF FINANCIAL STATEMENTS

Accountants, credit men, business managers and others, whose duties or interests require them to examine financial statements, have developed an almost uncanny shrewdness in drawing conclusions from the figures presented.

So highly developed is this ability in some men that they are credited with possessing a "gift" for analysis of business statements and statistics -an acute accounting or business sense which is denied to most people.

This, of course, is not true. Anyone thru continual contact with figures, statements, and statistics, who will "go beneath the surface," or who will make a systematic study of business values and the ratio of these values to each other, can develop just such an ability.

Purpose of Analysis. The rapid development and expansion of our great commercial enterprises has necessitated vast amounts of borrowed capital. Banks will not lend money, investors will not buy stocks and bonds, in fact capital will not be advanced, unless some knowledge of the financial strength of an enterprise is known or reasonably assured.

It is desirable and necessary, therefore, that borrowers furnish banks well prepared statements which give such information as:

1. Ability to meet obligations
2. Sccurity or value back of owner's interest
3. Profit possibilities

Determining the financial strength of a business undertaking is somewhat analogous to the work of the civil engineer, who, for example, is expected to calculate the strength of materials used in the construction of a bridge suitable for the carrying of a certain load. The accountant in a similar manner should weigh the financial factors that establish the strength of the enterprise under examination.

Conditions Fundamental to a Correct Interpretation. It is, of course, obvious that statements should be properly constructed, otherwise any attempt at analysis will fail, conclusions will be erroneous, and action based on such conclusions is apt to be misleading.

Among professional accountants the proper form for balance sheets and profit and loss statements has become pretty well standardized. In many cases the form is prescribed by regulatory bodies, such as The Interstate Commerce Commission, Public Service Commissions, State Insurance Departments, etc. Much has also been done by various voluntary associations of concerns operating in the same commercial field toward standardization of financial and operating statements.

It is equally important that the classification of items appearing in the statements be consistent. Conclusions cannot be safely drawn as to the trend of profits or expenses from one period to another unless the figures are taken from a classification of accounts that is the same year by year. Likewise the items should always appear under the same classification in the statements.

With these fundamentals always observed, the correct and complete interpretation of financial statements depends largely upon the knowledge of the individual, his technical training and experience in accounting and business, and his ability to recognize the important factors that are essential to an analysis of statements.

Major Factors in Analysis of Balance Sheet. In analyzing a balance. sheet to determine the financial strength of a business, there are certain factors to be considered. Each has a different basis and serves a different purpose. The most important factors of balance sheet analysis are:

1. Fixed Capital
2. Working Capital
3. Reserve Strength
4. Liquid Strength
5. Owned Capital
6. Borrowed Capital

Each of these factors can best be illustrated by the balance sheet of a typical business, such as the Central Manufacturing Company, reproduced in Figure 1.

1. Fixed Capital is that capital which is invested in the fixed assets of the business, less any funded or fixed indebtedness which applies to such property. This is the amount which has been permanently placed at the service of the business as the basis of its operations. It represents the margin by which the physical properties, together with any permanent investments, exceed the fixed liabilities, as, for example, the capital funds furnished by the owners in the business.

In the case under consideration the fixed capital is determined as follows:


The amount of fixed capital is an important factor of comparison in the analysis of any enterprise. It indicates the funds tied up in properties that are more or less inactive, except as a means of producing the product or service that is being rendered.

2. Working Capital is that portion of capital that is being actively used in operations. It is determined by the following calculation:

| Current Assets . Deferred Charges | $\begin{array}{r} \$ 586,000.00 \\ 3,000.00 \end{array}$ |
| :---: | :---: |
| Total | \$589,000.00 |
| Less Current Liabilities | 275,000.00 |
| Working Capital. | \$314,000.00 |

The amount of working capital represents the funds immediately available for financing the operations of the near future. Like fixed capital it is very useful as a factor for comparison.
3. Reserve Strength is represented by the value of all assets in excess of the current liabilities.


This computation is of especial interest to the banker negotiating a loan, since it indicates the security in excess of the current demands of the business.
4. Liquid Strength is represented by the total of the assets, which can be liquidated into cash within a reasonably short time under normal conditions. For the Central Manufacturing Company the liquid strength would be:


This is also of especial interest to the banker as it shows the amount available for the immediate liquidation of current liabilities. Notes Receivable of officers and employes, $\$ 15,000.00$, consists of notes that will not be paid within a reasonably short time. For this reason they are not included here in determining liquid strength.
5. Owned Capital, sometimes called "Invested Capital," designates the capital paid in and earned and is represented by capital stock and surplus. In the case of the Central Manufacturing Company the owned capital would consist of preferred and common stock and surplus.


The owned capital is considered very important in negotiating loans as it represents the equity of the owners, which in case of bankruptcy or dissolution, is an additional security to the holders of unsecured claims against the business.
6. Borrowed Capital is that part of capital which has been obtained from outside sources. It includes both the funded debt and the current liabilities. In the case before us it consists of the following:

| Current Liabilities. . . . . . . . . . . . . . . . . $\$ 275,000.00$ |
| :--- |
| Funded Debt. . . . . . . . . . . . . . . . $200,000.00$ |
| Borrowed Capital . . . . . . . . . . . . . . . . . $\$ 475,000.00$ |

Since certain forms of indebtedness are usually secured by definitely designated properties, either thru a mortgage or by assets assigned as collateral, it is important that borrowed capital be considered in its relation to the security given. The amount of borrowed capital, as a whole, is however, one of the principal factors in testing the financial strength of any enterprise.

Comparisons Provided by Major Factors. By the use of certain comparisons in the major factors of a balance sheet, some very interesting facts regarding financial strength can be obtained. First we shall summarize these factors, together with the amounts, so that we can more easily see certain relations.


We thus see that for every $\$ 100.00$ of owned capital invested in the enterprise there is $\$ 31.06$ employed as fixed capital and $\$ 68.94$ as working capital. This means that over two-thirds of the invested capital is being used in the active operations of manufacturing and trading. It also indicates that the permanent properties back of the stockholders' interest and their securities, in case of forced dissolution, are very small.

Another interesting and important fact is that there is now $\$ 104.00$ of borrowed capital for every $\$ 100.00$ invested by the owners.

The reserve strength of the business indicates that there is $\$ 326.25$ worth of assets for each $\$ 100.00$ of funded debt, and $\$ 143.35$ worth of assets for each $\$ 100.00$ of invested capital. This would seem to indicate
that altho the credit of the business had been used to a considerable extent, the creditors as well as the owners were well protected.

Since the current liabilities amount to $\$ 275,000.00$ and the liquid strength stands at $\$ 346,000.00$, it is evident that there is $\$ 125.82$ of liquid assets to satisfy every $\$ 100.00$ of such claims.

Ratios an Aid in Analysis. The above comparisons show that valuable relationships can be worked out for every balance sheet. When calculated on the basis of $\$ 100.00$ it even provides more convenient standards for comparing one balance sheet with another, and thus weighing their relative financial strength. Certain credit men have, therefore, established fixed ratios, which provide a uniform method for testing almost any business.

These ratios may be grouped under two main divisions:

Static Ratios:<br>1. Current Assets to Current Liabilities<br>2. Accounts Receivable to Inventories<br>3. Total Debt to Owned Capital<br>4. Owned Capital to Noncurrent Assets<br>Velocity Ratios:<br>1. Sales to Trade Receivables<br>2. Sales to Inventories<br>3. Sales to Owned Capital<br>4. Sales to Noncurrent Assets

The ratios in the first group are called static because they represent the condition of the business as reflected by the state of the assets and liabilities at a given date, viz., the date of the balance sheet. They serve as a sort of quantitative analysis of the financial factors based on totals.

Ratios in the second group are termed velocity ratios because they indicate the activity of the business as reflected thru the volume of sales. This might be called a qualitative analysis, since it tends to show the possible activity of the business.

Using the facts presented on the balance sheet of the Central Manufacturing Company, in Figure 1, we shall make an application of each of the ratios which have been mentioned.

## THE STATIC RATIOS

## 1. The Ratio of Current Assets to Current Liabilities.

$$
\begin{aligned}
& \text { Current Assets } \\
& \text { Current Liabilities............. } \$ 586,000.00 \\
& \qquad \text { Ratio }=\frac{\$ 586,000.000}{\$ 275,000.00}=\frac{2.13}{1}=2.13 \text { to } 1
\end{aligned}
$$

The above ratio of 2.13 to 1 indicates a good financial condition. The ratio of 2 to 1 is usually considered fair and anything above that consid-
ered good. This ratio may fluctuate to such an extent that it would be impossible to fix a standard, hence all conclusions should be drawn from the individual ratios. A showing of 2.13 per cent denotes the ability to liquidate all liabilities with a 1.13 per cent free capital for other purposes.

This ratio, which is very often spoken of as the "current ratio," may very properly be termed the "pulse of a business." It is generally held that a ratio of 2 to 1 is a fair average for most businesses under normal conditions. If the ratio drops below the adopted standard it would undoubtedly denote that the credit condition is growing poorer, while an increase would denote a general improvement. This ratio is important and shows the activities and trend of a business in a manner which, under ordinary conditions, may be relied upon. The current ratio may change at different periods due to the following conditions:

Ratio decreasing as a result of:

1. Inability to liquidate current assets while current liabilities are increasing. This might be occasioned by a decrease in collections or a decline in the rate of turnover, with a normal amount of purchases.
2. Conversion of current to fixed assets thru the medium of capital additions. Large amounts of working capital expended for capital additions without additional borrowed capital.

## Ratio increasing as a result of:

1. Increase in sales.
2. Cash contributions by the stockholders.
3. Cash received thru sales of stock or bonds. This results in an increase in current assets without increasing the current liabilities.

The ratio of Current Assets to Current Liabilities is commonly used for determining the financial strength prior to negotiating short term loans or granting a line of credit by a financial institution. This ratio may be used to advantage in any line or form of business.

## 2. The Ratio of Accounts Receivable to Inventories.

Accounts Receivable. . . . . . . . . . . . $\$ 200,000.00$
Merchandise. . . . . . . . . . . . . . . . $250,000.00$

$$
\text { Ratio }=\frac{\$ 200,000.00}{\$ 250,000.00}=\frac{.8}{1}=.8 \text { to } 1 \text {, or } 8 \text { to } 10
$$

This ratio indicates sufficient inventories on hand, if converted into sales, to produce more than the present Accounts Receivable.

In connection with this ratio it is important to remember that this method involves the element of profit in the merchandise sold, that is, the sales when made and entered as Accounts Receivable contain an element of profit which is not considered in the inventory.

The company has adopted $4 / 10-2 / 30-$ Net 60 , as the terms of credit. Assuming the average net profit of the Central Manufacturing Company to be 20 per cent, the adjusted ratio because of the profit element would then be:

| Accounts Receivable. <br> Less Profit $20 \%$. | $\begin{array}{r} \$ 200,000.00 \\ 33,333.33 \end{array}$ |
| :---: | :---: |
| Accounts Receivable-Cost Value. | \$166,666.67 |
| Accounts Receivable-Cost Value | \$166,666.67 |
| Inventories. | 250,000.00 |

$$
\text { Ratio }=\frac{\$ 166,666.67}{\$ 250,000.00}=\frac{.67}{1}=.67 \text { to } 1
$$

The Accounts Receivable are thus found to be equivalent to two-thirds of the present inventories. This denotes sufficient inventories on hand to supply the production requirements for a period of ninety days, viz.: $\$ 166,666.67 \div 2$ months $=\$ 83,333.33 \times 3$ months $=\$ 250,000.00$, being the amount of the present inventory. It will thus require up to ninety days to convert the merchandise into receivables and an additional thirty to sixty days to get the proceeds collected.

It would be inadvisable to advocate carrying accounts receivable at cost, since this would not disclose the actual amount due as a result of sales. It is also important not to attach too much significance to this ratio as of any single date. Averaged over several periods, however, this ratio is a valuable guide in the determination of proper inventories.

The ratio of Accounts Receivable to Inventories is usually indicative of business normalcy. A company maintaining a representative ratio of Receivables to Inventories is usually enjoying a uniform volume of business.

The ratio of Accounts Receivable to Merchandise may be used to advantage in a company maintaining a fairly representative inventory, for example, manufacturers, wholesalers, retailers, etc. This ratio would be of little, if any, value when applied to extractive industries such as lumber, mining, etc., where the company carries small inventories of outside merchandise and ships its own product simultaneously with the production.

## 3. The Ratio of Total Debt to Owned Capital.

$$
\begin{aligned}
& \text { Total Debt . . . . . . . . . . . . } \$ 475,000.00 \\
& \text { Owned Capital. . . . . . . . . } 455,500.00 \\
& \qquad \text { Ratio }=\frac{\$ 475,000.00}{\$ 455,500.00}=\frac{1.04}{1}=1.04 \text { to } 1
\end{aligned}
$$

This ratio is dependent upon conditions, because in a seasonal business, when the buying is at a high point, the ratio would rise, and when the business returned to a normal basis the debt, due to a decrease in current liabilities, would likewise decrease. During this entire period, however, the net worth would remain at practically the same amount. Hence in weighing the value of this ratio the average for a year would seem preferable to that of a given time.

This information is of special value to a new company depending entirely upon securing its capital thru the sale of stock or thru loans from its stockholders or other individuals. It may also obtain credit in the form of bank loans or in the form of creditors' accounts by purchasing goods
on time. Altho in many instances a company may be obliged to borrow, or obtain credit as a means of financing the enterprise during the early years of its existence, the amount of credit may be materially reduced thru the acquisition of earned capital from operations.

The ratio of the Total Debt to Owned Capital may be applied to any line or form of business enterprise. The application is similar to the ratio of the Current Assets to Current Liabilities; viz., it is used as a basis of determining facts regarding the portion of the total capital as owned and borrowed.

## 4. The Ratio of Owned Capital to Noncurrent Assets.

Refer to the balance sheet of Figure 1, and list the noncurrent assets. They include the following:
Investments. . . . . . . . . . . . . . . . $\$ 20,000.00$

Plant Property . . . . . . . . . . . . . . | $321,500.00$ |
| ---: |
| Deferred Charges . . . . . . . . . |
| Total Noncurrent Assets . . . . . . . . . . $\$ 344,500.00$ |

The owned capital is $\$ 455,500.00$, hence the computation would be-

$$
\text { Ratio }=\frac{\$ 455,500.00}{\$ 344,500.00}=\frac{1.32}{1}=1.32 \text { to } 1
$$

This ratio shows clearly the disposition of the owned capital. The full amount of the noncurrent assets may be purchased out of the owned capital and an amount equal to 32 per cent of this value remains in the current assets.

Two other cases showing the application of this ratio to certain classes of noncurrent assets, may be noted as follows:

1. Fixed Assets. Where a corporation is formed and incorporated for the purpose of manufacturing, mining, etc., the capital would be of no value unless invested in a manner wherein it would produce additional capital, hence it must be expended in part for land, building, machinery and equipment, or other mining property, equipment, leases, etc. Inasmuch as the original capital was expended in part for these items, capital derived from future earnings may also be expended likewise. The use of a ratio tends to show the approximate amount of the original and earned capital which has been expended for the fixed properties.

For example a certain corporation in one of the western states showed the following ratio of owned capital to fixed assets:

| Owned Capital, December 31, 1921Capital Stock ...................... $\$ 1,500,000.00$Surplus . . . . . . . . . . . . |  |
| :---: | :---: |
|  |  |
| Total. | \$2,000,000.00 |
| Total Fixed Property | \$700,000.00 |
| tio Owned Capital to Fixed Prop | 2.85 to |

This same corporation during 1922 acquired additional fixed properties valued at $\$ 200,000.00$ and earned $\$ 75,000.00$ from operation. The ratio December 31, 1922, appeared as follows:

Total Fixed Properties . . . . . . . . . . . . . . . $\$ 900,000.00$
Ratio Owned Capital to Fixed Property . . . . . . . . . . 2.3 to 1
2. Intangibles. A corporation at the time of its formation frequently acquires valuable patents in return for a certain amount of the capital stock. These patents are called intangible fixed assets, since they represent an investment similar to that of the fixed properties. That is, a certain value has been acquired thru a given expenditure of a part of the capital.

To illustrate the acquisition of intangible property and its relationship to owned capital, the following formula is introduced:


The importance of the ratio of Owned Capital to Noncurrent Assets may thus be stated as two-fold, viz:

1. It may disclose a tendency to deplete the resources of the corporation thru continuous payment of overgenerous dividends, without considering the necessity of acquiring other property.
2. It may disclose a tendency to an overinvestment in fixed properties thus resulting in financial embarrassment or disaster because of insufficient working capital.
The reason given under (1) can be corrected since this would only require a change in dividend policy, with a possible provision for retaining the profits until a substantial reserve for plant extension was accumulated.

Under conditions (2), however, the corporation meets a situation which may eventually prove to be disastrous if it is unable to bring in new capital thru loans or an issue of securities.

The ratio of Owned Capital to Noncurrent Assets is of special value in extractive industries where the greater part of the capital may be invested in timber and mining lands and thus be of a very permanent nature. The changes in ratio would then be brought about through acquisition of additional lands, operating those owned, and increase or decrease in capital due to operations. This ratio is most effective when used in connection
with branches of business requiring a certain investment in land, buildings, equipment, etc. Where the capital invested in noncurrent assets is comparatively small as compared with the total, the ratio loses its real significance.

## THE VELOCITY RATIOS

Having clearly denoted the relative importance of balance sheet analysis by the application of static ratios, we shall now take up the velocity ratios, which serve to test the quality of the assets back of the statement.

As the term "velocity" denotes activity, the ratios of this group are confined to comparison of sales with the accounts resulting from sales. These accounts are as follows:

1. Accounts Receivable
2. Inventories
3. Owned Capital
4. Noncurrent Assets

A careful study of these accounts will illustrate clearly the use of velocity ratios.

1. Sales under ordinary terms result in accounts receivable.
2. Sales come from inventories, either in crude or converted form with profit added.
3. Sales produce a profit or loss which affects the owned capital.
4. Sales result in earnings, which may be used for the purchase of noncurrent assets. The noncurrent assets are essential to the increase of sales volume.

Each of these items bears a direct relation to the others, and like the static ratios shows either better or worse financial condition at different dates. Let us assume as a basis for illustration that the net sales of the Central Manufacturing Company for the year ending December 31, 1922, amounted to $\$ 891,000.00$.

1. The Ratio of Sales to Accounts Receivable. This ratio serves as a means of determining the rapidity of collections. It denotes the average number of times a company can convert its merchandise into cash during a given period. For example, the Central Manufacturing Company is selling merchandise at the rate of $\$ 891,000.00$ net, annually. This would represent average monthly sales of $\$ 74,258.00$.

The terms of credit are $3 / 10-2 / 30-$ Net 60 , and previous records show that most of the trade is not taking advantage of discounts. Most payments are made upon the expiration of a sixty-day period. What values should be represented by the accounts receivable at December 31, 1922?


The sales for the last two months, or as the terms of credit denote, sixty days, amount to $\$ 148,516.00$. Hence we have:
Accounts Receivable. . ............ $\$ 200,000.00$
Sales for 60 days. ........ $148,516.00$
Collections in arrears . ......... $\$ 51,484.00$

This denotes a general decline in collection activity, which expressed in terms of time would be:
$\$ 51,484.00 \div \$ 74,258.00=69 / 100$ of 30 days, or approximately 21 days in arrears.

There are a few exceptions to this rule which must be considered in making this computation.

1. Fluctuation in Sales.
2. Fluctuations in Returns and Allowances.
3. Doubtful Accounts Included in Accounts Receivable.

In the preceding paragraphs the plan of average monthly sales was introduced. It should be borne in mind that averages are not facts, hence, in drawing final conclusions concerning this method of obtaining ratios this point should not be overlooked. Merchandise is converted into accounts receivable when sales are made, and the rapidity of conversion is dependent upon capacity and demand.

The ratio of Sales to Accounts Receivable may be readily applied in all lines of business where the credit policy is consistent. If a company is operating on the basis of part cash or C. O. D. sales and part credit sales, this ratio would be of little value unless confined to credit sales. On the other hand, if a company is selling entirely on uniform terms of credit, this ratio can be used with very good results.
2. The Ratio of Sales to Inventories. Under normal conditions this ratio is fairly uniform and therefore is a good test of efficient operations. A corporation maintaining a standard average of sales would undoubtedly seek to maintain a more or less uniform inventory, thus avoiding an overstocked condition.

If a corporation can turn its merchandise six times each year, the maximum requirement at a given date would be a supply for two months. If, at any date, the inventories are found to be less it would denote a shortage in the materials, or trying to work on too close a margin. On the other hand, an overstocked condition indicates danger, as in most instances materials cannot be liquidated without a heavy loss. The tying up of funds in slowly moving materials tends to increase the volume of capital which is more or less inactive or unproductive.

The ratio of Sales to Inventories may be used to advantage where the company is engaged in a manufacturing, wholesale, or retail business. The merchandise inventory must be an important factor in the operation in order to be of any value in establishing a ratio. For example, a mining or lumber company might sell products valued at many thousands or millions
of dollars. Their inventory under ordinary circumstances would consist of a small amount of lumber, camp supplies, repair parts, etc. This statement is made on the assumption that the company, as is most generally the case, ships the lumber as soon as it is ready for shipment.

Taking the facts of the Central Manufacturing Company the computation of this ratio is as follows:

```
Inventories December 31, 1922. . . . . . . . . . . . . $250,000.00
Net Sales-year ended December 31, 1922. . . . . . . . $891,000.00
Cost of Sales for the year=64.78
```

Applying this percentage we have:

```
$891,000.00 < 64.78% = $577,189.80
$577,189.80\div12=$48,099.15 (monthly requirement)
$250,000.00\div$48,099.15=5.19 (number of months supply)
    Ratio = = $577,189.80}$250,000.00 =\frac{2.31}{1}=2.31 to 
```

The significance of this ratio is that the sales are equal to 2.31 of the total inventories. If the volume of sales for 1923 is maintained equal to those of 1922, it will be necessary to purchase materials equivalent to 2.31 times the present value of the inventory. This ratio will therefore be useful in making plans for purchasing and production. This is, of course, based on the assumption that it is desirable to carry the present amount of inventory.
3. The Ratio of Sales to Owned Capital. The purpose of developing this ratio is to determine the relative use of capital in conducting the business. After a certain ratio has been established as to the amount of capital necessary to do a business of a given volume of sales, any fluctuation will indicate to what extent capital is being accumulated beyond profitable investment.

Take the case of the Central Manufacturing Company for 1922:

$$
\begin{array}{r}
\text { Net Sales . . . . . . . . . . . . . . } \$ 891,000.00 \\
\text { Owned Capital. . . . . . . . . . } 455,500.00 \\
\text { Ratio }=\frac{\$ 891,000.00}{\$ 455,500.00}=\frac{1.95}{1}=1.95 \text { to } 1
\end{array}
$$

To see more clearly the importance of this ratio, examine the ratios for a five-year period, as follows:

| Year | Sales |
| :---: | ---: |
| 1918 | $\$ 500,000.00$ |
| 1919 | $550,000.00$ |
| 1920 | $350,000.00$ |
| 1921 | $700,000.00$ |
| 1922 | $891,000.00$ |


| Owned <br> Capital | Ratio |
| :---: | :---: |
| $\$ 325,000.00$ | 1.53 to 1 |
| $335,500.00$ | 1.64 to 1 |
| $347,500.00$ | 1.01 to 1 |
| $420,000.00$ | 1.66 to 1 |
| $455,500.00$ | 1.95 to 1 |

In this comparison for five years you see that sales are increasing faster than is the owned capital employed. The year of 1920 makes a very poor showing, but the indication for the five-year period is that the capital is well invested in producing sales.

A business man is mostly interested in securing the highest possible earning power out of the owned capital. The increase of the ratio of Sales to Owned Capital from 1.53 to 1.95 is very encouraging and significant.

When the maximum earning power of the owned capital has been established it will tend to remain constant, which is a standard of importance in future financing.

This ratio may be applied to any class or form of business with equally accurate results. Unlike many other ratios which require certain uniformity of values in order that accurate results may be obtained, this ratio may be applied under any condition. The result obtained from its use may be influenced by the following factors:

> 1. Increase or Decrease of Paid-in or Earned Capital.
> 2. Losses sustained from operations or other sources.
4. Ratio of Sales to Noncurrent Assets. There is a tendency in most businesses to retain a certain amount of their surplus for the purpose of making additions to their plant or for improvements and extensions. Such a policy should only be followed, however, when the requirements of the business are such that a more extensive plant is profitable. The ratio of Owned Capital to Noncurrent Assets, as pointed out under the static ratios, serves as a basis for indicating whether earnings are being retained in the form of permanent investment.

A test is needed to show the profitableness of such investment, however, and that is found in the ratio of Sales to Noncurrent Assets. A comparison for a period of years would serve as a basis of ascertaining the minimum and maximum production ratio on the basis of a uniform investment in noncurrent assets.

A fluctuation in price, however, occurring over a period of years, would have to be considered in connection with the use of this ratio. Suppose, for example, the prices had remained uniform for a period of five years, with a uniform volume of sales, and that during the following year prices increased by an average of 25 per cent. The sales for this year would then amount to 125 per cent of those of the previous five years. How would this condition affect the ratio?

The increase of 25 per cent would necessarily denote an increase in value, but not an increase in volume. Therefore, if this ratio is to be used as a reliable basis for comparison, the ratio of actual quantities must be compared with that of the values, and due consideration should be given to any fluctuations in prices which may have occurred.

Inasmuch as it would be impossible in many instances to ascertain quantities, the better plan would seem to be to note the fluctuation in price and adjust the sales figure by eliminating the increase in price. The adjusted figure would then reflect an increase in volume, and might safely be used in determining the ratio of Sales to Noncurrent Assets.

The formula for this ratio would be:

$$
\frac{\text { Sales }}{\text { Noncurrent Assets }}=\frac{\$ 891,000.00}{\$ 321,500.00}=\frac{2.77}{1} \text {, or } 2.77 \text { to } 1
$$

Sales are not, of course, dependent upon the capital invested in fixed assets, but there is a fairly definite relation between the investment necessary for production and the volume of sales produced in any line of business.

The ratio of Sales to Noncurrent Assets may be applied to those kinds of businesses which are compelled to employ a part of their capital in fixed or producing properties. For example, companies operating mines, oil wells, and producing lumber must have a certain amount of capital invested in lands or leases. A manufacturing company must own machinery and equipment suitable for the manufacture of its product. On the other hand, a wholesale or retail business may be operated in rented properties with a comparatively small expenditure for equipment. These points must be taken into consideration when making use of the ratio.

The Application of Ratios to an Abnormal Business Condition. The Eastern Manufacturing Company will be used to illustrate an abnormal condition. This concern contemplates an enormous growth in business in the near future and therefore expends a large amount of its working capital for the purchase of additional buildings and plant equipment. The magnitude of its plant extensions far surpasses the present requirements and there is reason to believe, owing to prospective economic conditions, that the greater part will never be used by the enterprise.

The corporation may obtain a small amount of borrowed capital from banks or perhaps a greater amount thru the issue of first mortgage bonds. In either case the amount received will be inadequate to finance future operations, hence the corporation will experience financial difficulties. An exceptional change in economic conditions may bring relief, but this is only a possibility that may develop. The comparative balance sheet shown in Figure 2 illustrates this condition.

Use of Static Ratios. A careful study of the two balance sheets, December 31, 1921 and 1922, reveals an exceptional decrease in the current assets with a corresponding increase in the fixed properties.

The changes in ratios denote a similarity in amount between the decrease in current and increase in fixed assets.

The degree of change in the ratios appears to be about equal, as revealed in the following comparison:


Use of Velocity Ratios. A careful survey of the changes occurring in the Fixed Asset Accounts during the year of 1922 discloses an increase of $\$ 799,500.00$. As stated above, the company expended vast amounts of capital for fixed properties, far in excess of the actual requirements, thus depleting its working capital. This expenditure was made in anticipation


Figure 2. This comparative balance sheet illustrates how a policy of expansion may cause the current assets to be expended in fixed properties and thus decrease the funds available for working capital. The statement is prepared according to the method out-
lined in Assignment 29. The form directly opposite is part of this statement.
of an increase in sales, or based on what seemed to be an increasing demand. On account of economic conditions the new equipment was never used to the full capacity and extent for which it was intended. Thus the company had practically all of its owned capital invested in fixed properties, without the prospect of an increase in sales after the additional facilities had been acquired.

The business man is particularly interested in determining the productivity of his fixed properties. After arriving at a standard or average ratio; or possibly attaining a high mark in production, he will subsequently seek to maintain this average.

An average ratio is also valuable in outlining a conservative construction program. A firm or corporation marketing a staple product and having maintained an average ratio of 3 to 1 over a period of ten years, could reasonably expect to continue operations on this basis. In such cases additions may reasonably be justified on a well defined schedule of sales.


Figure 2A. This form is a part of Figure 2 on opposite page. In it is shown the righthand side of the comparative balance sheet. Asterisks before amounts indicate deductions.

Practical Use of Ratios. Thus far in the assignment we have presented the relative value of individual ratios. It is important to remember that a still greater value attaches to the ratios if they are used collectively instead of individually. If the purpose may be served best by the collective use of ratios, the statements should be prepared and arranged accordingly. When the statement is to be used for credit purposes the various ratios properly applied will aid materially in establishing the relationship of the accounts. For the purpose of a stockholder some of the ratios would obviously be of less significance.

## MAIN POINTS IN THIS ASSIGNMENT

The more important points brought out in this assignment may be briefly summarized as follows:
First. An analysis of financial statements should produce the following information:

1. Ability to Meet Obligations
2. Security or Value Back of Owner's Interest
3. Profit Possibilities

Second. Major factors entering into an analysis are:

1. Fixed Capital
2. Liquid Strength
3. Working Capital
4. Owned Capital
5. Reserve Strength
6. Borrowed Capital

Third. The ratios may be divided into two groups as follows:
Static:

1. Ratio of Current Assets to Current Liabilities
2. Ratio of Receivables to Inventories
3. Ratio of Debt to Owned Capital
4. Ratio of Owned Capital to Noncurrent Assets

Velocity :

1. Ratio of Sales to Receivables
2. Ratio of Sales to Inventories
3. Ratio of Sales to Owned Capital
4. Ratio of Sales to Noncurrent Assets

Fourth. Ratios may be termed the "pulse of a business."
The current ratio may recede as a result of:

1. Inability to Liquidate Current Assets with a Corresponding Increase in Current Liabilities
2. Conversion of Current into Fixed Assets thru Capital Additions It increases ordinarily as a result of:
3. Increase in Sales
4. Cash Contributions by the Stockholders
5. Cash Received thru Sales of Stock or Bonds

Fifth. The ratios between years may be materially changed by conversion of current into fixed assets.
Sixth. Ratio of Merchandise to Sales is directly affected by method of pricing inventories, fluctuation in sales, prices, etc.
Seventh. Inventory of retail merchant presents a peculiar problem in method of pricing.
Eighth. Sales may fluctuate even tho the net worth may remain permanent. Change in prices affects relative value of ratio of Sales to Net Worth.
Ninth. Ratio of Sales to Noncurrent Assets is of especial value in outlining füture policies.

## PROBLEMS TO BE SOLVED WITH ASSIGNMENT 30

Prepare and send in solutions for the following two problems:

1. The following post-closing trial balances of the Elmwood Manufacturing Company were taken from the general ledger on December 31, 1921, and 192.2.

| ELMWOOD MANUPACTURING CO., December 31, 1921, and 1922 |  |  |  |
| :---: | :---: | :---: | :---: |
| Cash. . . . . . . . . . . $\$$ \$ $\begin{gathered}1921 \\ \text { Debits } \\ 10,000.00\end{gathered}$ | Credits | 1922 Debits $\$ 12,500.00$ | Credits |
| Accounts Receivable . . . . . 150,000.00 |  | 162,000.00 |  |
| Notes Receivable. . . . . . . $15,000.00$ |  | 15,000.00 |  |
| Inventories . . . . . . . . . $300,000.00$ |  | 275,000.00 |  |
| Investments . . . . . . . . . . $25,000.00$ |  | 25,000.00 |  |
| Land. . . . . . . . . . . . . . $25,000.00$ |  | 25,000.00 |  |
| Buildings . . . . . . . . . . . 150,000.00 |  | 155,000.00 |  |
| Machinery . . . . . . . . . . 175,000.00 |  | 200,000.00 |  |
| Equipment . . . . . . . . . . . 30,000.00 |  | 35,000.00 |  |
| Automobile Trucks . . . . . . . 10,000.00 |  | 10,000.00 |  |
| Furniture and Fixtures. . . . . 15,000.00 |  | 15,000.00 |  |
| Prepaid Insurance . . . . . . . 2,000.00 |  | 2,500.00 |  |
| Reserve for Depreciation. | \$ 30,000.00 |  | \$ 48,750.00 |
| Notes Payable. . | 70,000.00 |  | 65,000.00 |
| Accounts Payable. | 85,000.00 |  | 75,000.00 |
| Accrued Wages . | 5,000.00 |  | 5,500.00 |
| Accrued Taxes | 7,000.00 |  | 7,500.00 |
| Accrued Interest. . . | 1,000.00 |  | 900.00 |
| Capital Stock, Common | 400,000.00 |  | 400,000.00 |
| Capital Stock, Preferred. | 200,000.00 |  | 200,000.00. |
| Surplus . . . . . . . | 109,000.00 |  | 129,350.00. |
| \$907,000.00 | \$907,000.00 | \$932,000.00 | \$932,000.00 |

The Accounts Receivable at the close of each period contain the following items

|  | 1921 | 1922 |
| :---: | :---: | :---: |
| Trade Customers | \$130,000.00 | \$150,000.00 |
| Advances on Purchases | 15,000.00 | 10,000.00 |
| Officers. | 5,000.00 | 2,000.00 |
| Total Accounts Rece | \$150,000.00 | \$162,000.00 |

The inventories are composed of three classes:

| Raw Materials | \$175,000 | \$150,000.00 |
| :---: | :---: | :---: |
| Work in Process | 75,000.00 | 80,000.00 |
| Finished Goods. | 50,000.00 | 45,000.00 |
| Total Inventorie | 8300,000.00 | \$275,000 |

The Accounts Payable contain the following balances:


From the trial balances and the supplementary facts you are asked to prepare:
(a) A comparative balance sheet as of December 31, 1921, and 1922.
(b) Compute and tabulate the following for December 31, 1922:

1. Fixed Capital
2. Working Capital
3. Reserve Strength
4. Liquid Strength
5. Owned Capital
6. Borrowed Capital
(c) Compute the static ratios for December 31, 1922.
7. The Southwestern Hardware Company experiences financial difficulties due to a shortage in working capital. The following balance sheet is prepared and submitted to their bankers with the idea of securing a loan.

| The Southwestern Hardware Company BALANCE SHEET, December 31, 1922 |  |  |  |
| :---: | :---: | :---: | :---: |
| ASSETS |  | Notes LiABILITIES AND CAPITAL |  |
| Accounts Receivable. | $\$ 10,000.00$ $300,000.00$ | Accounts Payable . | $\$ 200,000.00$ 250,000 |
| Inventory. | 200,000.00 | Accrued Items. . . | 10,000.00 |
| Buildings. | 200,000.00 | Reserve for Depreciation | 50,000.00 |
| Equipment. | 20,000.00 | Capital Stock. | 200,000.00 |
| Prepaid Insurance. | 1,000.00 | Surplus. . | 21,000.00 |
|  | \$731,000.00 |  | \$731,000.00 |

In addition to this, the company furnishes a profit and loss statement for the three years, ended December 31, 1922. (Shown on page 21.)

On January 2, 1923, the bank decided to grant a loan of $\$ 200,000.00$ to the Southwestern Hardware Company. One-half of this loan is covered by a mortgage on the buildings. The balance of this loan is given for notes of the company which will mature within one year.

The bank credits the $\$ 200,000.00$ to the account of the Southwestern Hardware Company. On January 3 the company pays $\$ 175,000.00$ of its accounts payable.

| PROFIT AND LOSS STATEMENT, for 1920, 1921 and 1922 |  |  |
| :---: | :---: | :---: |
| Net Sales . . . . . . . . . . . . . . . . . . . $\$ 600,000.00$ | $\begin{gathered} 1921 \\ \$ 750,000.00 \end{gathered}$ | $\begin{gathered} 1922 \\ \$ 730,000.00 \end{gathered}$ |
| Cost of Sales . . . . . . . . . . . . . . 450,000.00 | 610,000.00 | $605,000.00$ |
| Gross Profit. . . . . . . . . . . . . . . $\$ 150,000.00$ | \$140,000.00 | \$125,000.00 |
| Selling Expenses: |  |  |
| Salesmen's Salaries . . . . . . . . . . . . . \$ 30,000.00 | \$ $25,000.00$ | \$ $25,000.00$ |
| Salesmen's Commissions. . . . . . . . . . . . 30,000.00 | 37,500.00 | 35,000.00 |
| Traveling Expenses. . . . . . . . . . . . . $10,000.00$ | 15,000.00 | 12,000.00 |
| Total Selling Expenses. . . . . . . . . . $\$ 70,000.00$ | \$ 77,500.00 | \$ $72,000.00$ |
| Net Trading Profit. . . . . . . . . . . . $\$ 80,000.00$ | \$ $62,500.00$ | \$ $53,000.00$ |
| Administrative and General Expenses: <br> Officers' Salaries. $\$ 20,000.00$ | \$ 17,000.00 | \$ 17,000.00 |
| Office Salaries . . . . . . . . . . . . . . . 5, 5 , 00000 | 4,000.00 | 3,000.00 |
| Telephone and Telegraph . . . . . . . . . . $1,000.00$ | 800.00 | 900.00 |
| Office Supplies and Stationery. . . . . . . . . 2,500.00 | 2,000.00 | 1,800.00 |
| Taxes . . . . . . . . . . . . . . . . . . 1,500.00 | 1,750.00 | 1,¢00.00 |
| Insurance . . . . . . . . . . . . . . . . . 200.00 | 250.00 | 200.00 |
| Miscellaneous Expenses. . . . . . . . . . . . 3,500.00 | 2,500.00 | 1,300.00 |
| Total Administrative Expenses . . . . . . . $\$ 33,700.00$ | \$ $28,300.00$ | \$ $25,800.00$ |
| Net Profit for Period . . . . . . . . . . $\$ 46,300.00$ | \$ $34,200.00$ | \$ $27,200.00$ |

From these facts you are asked to prepare the following:
(a) A classified balance sheet as of December 31, 1922, immediately before the loan was negotiated.
(b) A classified balance sheet as of January 3, 1923, after the new capital and the payment of the accounts payable have been recorded.
(c) Compute the static ratios for both balance sheets.
(d) Compute the velocity ratios at the close of each of the three years, using the following amounts, in addition to the statements presented above.


Draw any conclusions as to facts or tendencies disclosed by these ratios.

# Higher Accountancy 

PRINCIPLES
PRACTICE and'
PROCEDURE

## Elements of Accounting Practice

## GENERAL INDEX AND CONTENTS

A Working Guide to the Course

## LaSalle Extension University <br> Chicago

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## HOW TO USE THE INDEX

## FOR ELEMENTS OF ACCOUNTING PRACTICE

The index which follows is a working guide for use in your study of the assignments in Elements of Accounting Practice. It has been planned for easy and instructive reference.

First a table of contents for the thirty assignments shows the main subjects developed in each assignment. This will enable you to survey quickly the content of the entire course.

Then follows a complete alphabetical index listed by subjects. Take, for example, Classification of Accounts. Everything that is given on this subject is properly listed under that heading. It shows not only the material contained in the assignment on the Classification of Accounts, but also all references to this subject in other assignments. By referring to the heading, Classification of Accounts, and its subtitles, you can study the subject in its entirety, including its major treatment and every application thruout the course. The same is true of other subjects as Depreciation, Capital, Accrued Items, etc.

The main accounting subjects are cross-indexed. If, for example, you wish information on posting the cash journal you will find it as one of the subheadings under Posting or you will find an item on Posting under Cash Journal. By trying all the possible subjects under which any item for which you are looking might be found, you will be able to secure a complete reference.

The references for each assignment are made by showing the number of the assignment in italic type followed by the page numbers in such assignment. Thus the reference $6-17,18,22$ indicates Assignment 6, pages 17, 18, and 22. If the subject is discussed in more than one assignment, the various references are shown, as follows: $3-8,9,11 ; 14-2,9$. The symbol (0) refers to the introductory folder; $T . P$. to the title page of each assignment.

The Index will save your time. The complete list of subjects treated gives you a clear idea of the thoro manner in which these assignments have been covered and the comprehensive, basic training which they afford. The Index will help you to review this work from time to time. It will afford you an opportunity to test yourself on any point with which you have had difficulty. It will also be a great convenience in looking up points on which you desire information. It will help you find quickly how to deal with the hundred or more everyday problems which may come up for solution or which your investigative mind wishes to check against the basic accounting principles developed in these assignments and the sound procedure which is pointed out in every application.

The Index, therefore, and its use are of vital importance to the fullest development of your accounting training. If you use the Index in the manner suggested, you will find it to be just as valuable as any one of the assignments.

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## WHAT MEN OF PROMINENCE THINK

Each assignment contains an important statement to the accounting profession from some well-known accountant, business executive, or educational leader. These messages are worthy of careful reflection. They are opinions that have been thought thru to a careful conclusion. They are the essence of the experience of the following successful men:

Introduction -Percy H. Johnston<br>President, Chemical National Bank, New York

Assignment 2-Elmer E. Brown, Ph. D.
Former U. S. Commissioner of Education
Assignment 3-Message from Forbes Magazine
Assignment 4-Elmer H. Youngman
Editor, Banker's Magazine
Assignment 5-F. A. Seiberling
President, Seiberling Rubber Company
Assignment 6-J. Ogden Armour President, Armour \& Company

Assignment 7-R. E. Connolly
Treasurer, Illinois Central Railroad Company
Assignment 8-A. Von Schlegell
Vice President, Hupp Motor Car Corporation
Assignment 9-W. A. Landerd Auditor and Credit Manager, The Coca Cola Company

Assignment 10-E. F. Dahm
Associate Educational Director, LaSalle Extension University
Assignment 11-Woodrow Wilson
Assignment 12-H. Hough
Comptroller, The B. F. Goodrich Company
Assignment 13-Douglas Wilson
Chairman, State Board of Examiners in Accountancy, Montana
Assignment $14-$ H. Cuthbert, C.P.A.
President, Arizona State Board of Accountancy
Page 8-Contents

Formerly State Auditor and Member of the Tennessee State Board of Certified Public Accountants

Assignment 17-Wm. H. Howe
Auditor, The Diamond Match Company
Assignment 18 - Geo. H. Hess, Jr.
Comptroller, Great Northern Railway Company
Assignment 19-W. S. Carpenter
Vice President and Treasurer, E. I. duPont de Nemours \& Co.
Assignment 20 -Wilbur C. Fisk, C. E.
President, Hudson \& Manhattan Railroad of N. Y.
Assignment 21-Geo. Wattley
Treasurer, United States Retail Stores Corporation
Assignment 22-James Logan
Chairman of the Board and General Manager of the United States Envelope Company

Assignment 23-Irving R. Allen
Vice President and General Manager H. W. Kastor \& Sons Advertising Co.

Assignment 24-Charles R. Stevenson
General Manager, National Veneer Products Co.
Assignment 25-Walter C. Allen
President, Yale \& Towne Lock Co.
Assignment 26-A. R. Erskine, C.P.A.
President, Studebaker Corporation
Assignment 27-J. G. Kissinger
President, Milwaukee Association of Commerce
Assignment 28-W. D. Whitcomb, C.P.A.
Whitfield, Whitcomb \& Co., Portland, Oregon
Assignment 29-N. A. Hawkins, C.P.A.
Hawkins, Gies \& Company, Certified Public Accountants, Detroit, Michigan

Assignment $30-$ C. M. Lemperly
Assistant Manager, Sherwin-Williams Co., Cleveland, Ohio

## KEY

The references for each assignment are made by showing the number of the assignment in italic type followed by the page numbers in such assignment. Thus the reference $6-17$, 18, 22 indicates Assignment 6, pages 17, 18, and 22. If the subject is discussed in more than one assignment, the various references are shown, as follows: $3-8,9,11 ; 14-2,9$. The symbol $(0)$ refers to the introductory folder; T. P. to the title page of each assignment.

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Matriculation No

Use these Blank Forms
in Preparing
Your Solutions for Assignment 22



[^0]:    "I don't think much of a man who is not wiser to-day than he wasyesterday." - Abraham Lincoln.

[^1]:    Sules
    Purchases
    Previous Inventory
    Expenses
    Income

[^2]:    *Merchandise Inventory Dec. 31, 1921, $\$ 4,000.00$.

[^3]:    Dec. 1 Pays $\$ 100.00$ rent.
    1 Purchases from M. Moll on account, merchandise valued at $\$ 500.00$.
    2 Sells to J. A. Abbey on account, merchandise valued at $\$ 175.00$.
    2 Buys from L. M. Call on account, merchandise valued at $\$ 150.00$.

[^4]:    "How can I use statements that are as incomplete and false as these are? You should have adjusted your ledger accounts, and then your statements would have been correct."

[^5]:    Reserve for Depreciation. $\$ 4,500.00$
    Machinery (0ld asset) $\$ 4,500.00$

[^6]:    Assignment 18, Page 12

[^7]:    Subscribers . . . . . . . . . . . . . \$25,000.00
    Capital Stock Subscribed
    $\$ 25,000.00$
    To record subscriptions to Capital
    Stock.

[^8]:    Taxes on Plant and Equipment. Insurance on Plant and Equipment. Rent. Repairs. Mill Supplies.

