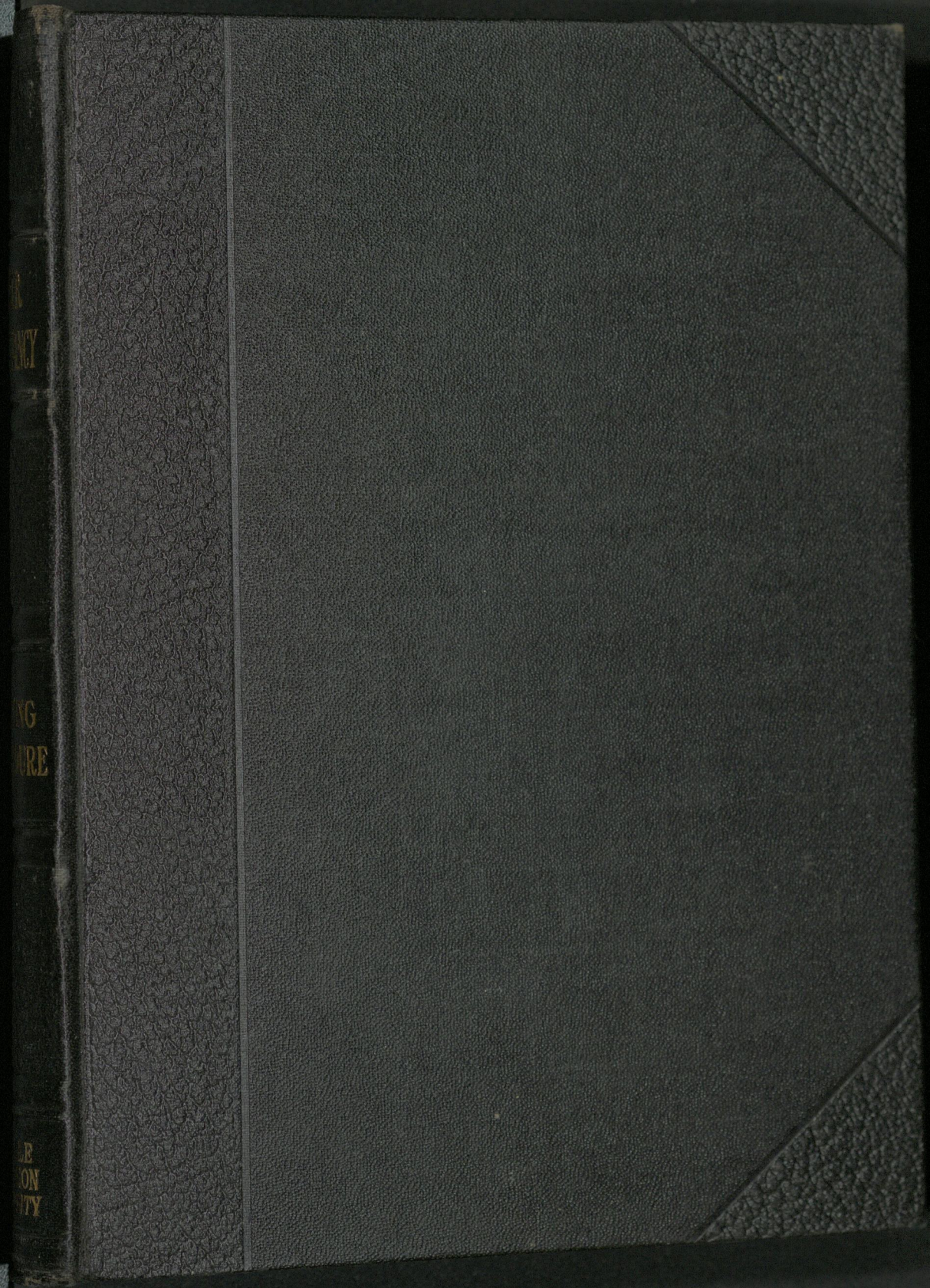
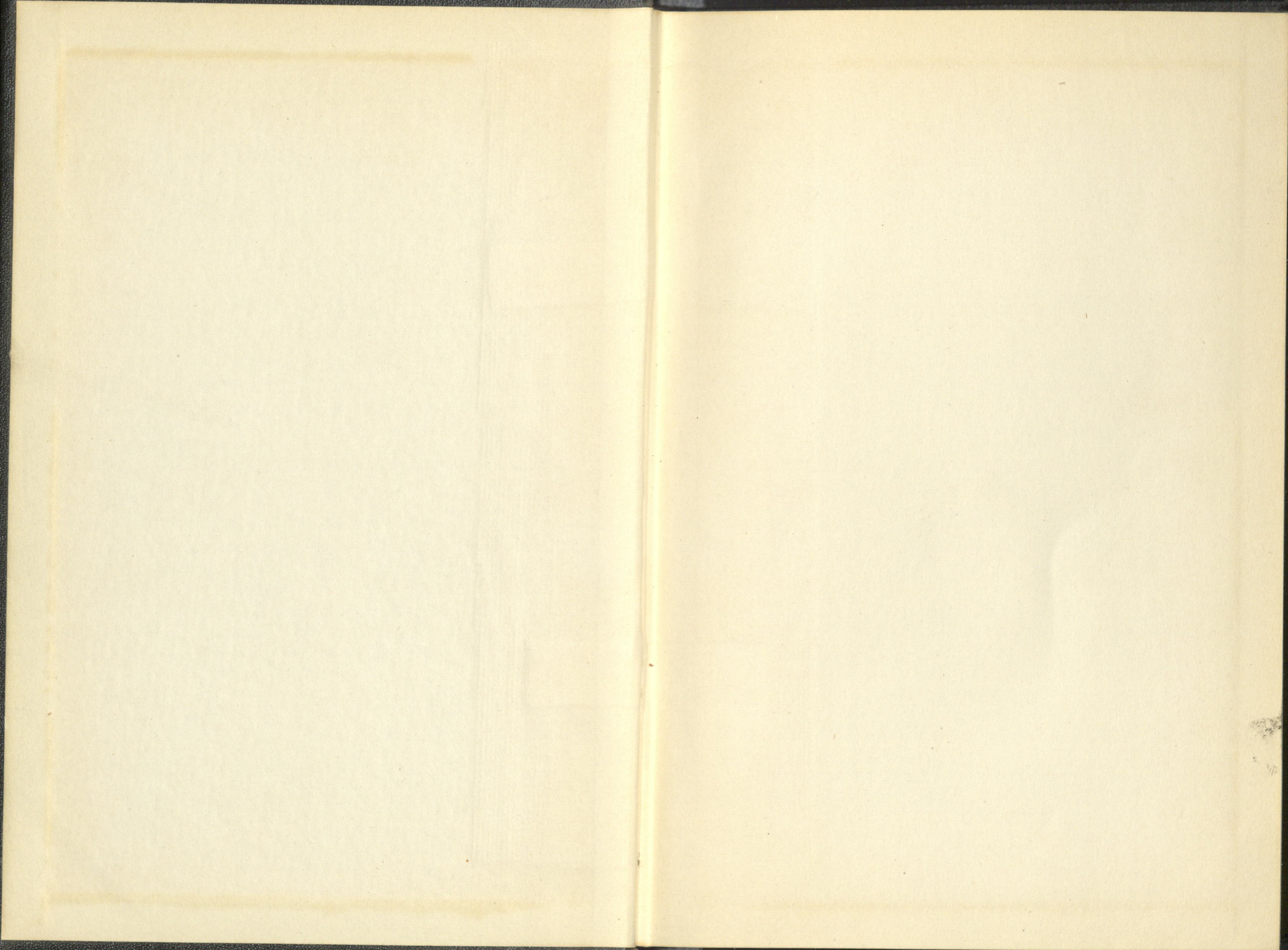




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AUDITING PROCEDURE

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Income Tax Procedure, Etc.

Former Comptroller and Instructor in Accountancy
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LaSalle Extension University
Chicago
1927

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PREFACE

This is a second edition of this text which first appeared in 1918. This work has been extensively revised and considerable new material has been added. A new feature, which should be of value to the student and the practitioner, is a complete set of audit working papers; all of the papers are based upon an actual audit with only the proper names omitted or modified.

This work, though it makes no claim to any finalities, is an attempt to deliver to the student of auditing and to the practitioner a guide on procedure. Not only are the various accounts that must be examined and analyzed in an audit covered, but, in addition and more vitally, it is the object of this book to outline the actual methods, or procedure, necessary to secure satisfactory results from such examinations and analyses. Not what and why, but how—that is the essential message of this book.

Within the limited scope of a work of this kind it has, of course, been impossible to delve into accounting problems affecting every peculiar type of business organization. The object of the book is a general one, and the remarks herein must therefore be limited by that object.

Standard works on auditing have been freely used as aids for subject matter and arrangement. It will be noted that the arrangement follows the more acceptable forms of balance-sheet and profit and loss statement construction. The actual procedure recommended rests upon the author's many years of practical experience in public accounting.

It is hoped that this volume will accomplish its mission of supplying the necessary tools for actual practice in as effective a manner as other texts have developed the theory, principles, and objects of auditing. It is hoped that this second edition will add some additional stimulus to the ever-increasing feeling of responsibility which must be assumed by public accountants; it is hoped that the larger emphasis placed upon the business-building uses of auditing will result in an improved and wider field for the public accountant.

The author wishes gratefully to acknowledge the helpful suggestions and constructive criticisms offered by Ennes C. Rayson, A.B., C.P.A., of LaSalle Extension University, and especially his work in arranging the subject matter and the set of audit working papers.

January 15, 1927.

William B. Castenholz

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ILLUSTRATIVE WORKING PAPERS

roughly believe that the principal part of an audit is to verify the arithmetical accuracy of the books, to make a statement that the accounts were examined and found correct, and to add a balance sheet and a profit and loss statement. However, this conception is too limited. The auditor must be not only an accountant who understands thoroughly the construction of the accounts examined; he must to a very large degree be a business analyst. He must reveal to the business the effect of business policies and the factors which contribute to greater cohesion and efficiency in administration, office routine, factory production, or marketing. It is the business-building, constructive side of auditing that is of greatest worth. The processes involved are merely means toward this constructive end.

Qualifications of an Auditor. To supply the requisite business education required of a public accountant is not the object of this book. It is limited to the actual procedure of making an audit. We have in mind, however,

AUDITING PROCEDURE

Chapter I

AUDITING AND PUBLIC ACCOUNTING

Nature of auditing—Purpose of an audit—Its greatest worth—Auditor's qualifications—Value of an audit.

Auditing, unlike bookkeeping, is an analytical process. It not only implies a thorough knowledge of accounts and the principles underlying their construction, but demands the power to analyze properly the details of business transactions and to synthesize correctly the operations of a business. An auditor's report, therefore, must not be merely a logical grouping of accounts; it must reveal fully the value of certain forces in accomplishing desired results and their effect on the financial status of a business organization.

Many practitioners wrongly believe that the principal end of an audit is to verify the arithmetical accuracy of the books, to make a statement that the accounts were examined and found correct, and to add a balance sheet and a profit and loss statement. However, this conception is too limited. The auditor must be not only an accountant who understands thoroughly the construction of the accounts examined; he must to a very large degree be a business analyst. He must reveal to the business man the effect of business policies and the factors which contribute to greater cohesion and efficiency in administration, office routine, factory production, or marketing. It is the business-building, constructive side of auditing that is of greatest worth. The processes involved are merely means toward this constructive end.

Qualifications of an Auditor. To supply the requisite business education required of a public accountant is not the object of this book. It is limited to the actual procedure of making an audit. We have in mind, however,

to impress upon the prospective public accountant and some of the present practitioners the need for a general business education, so that auditors' reports may be real and valuable sources of information and analyses of operations rather than stereotyped certificates. Our object is to encourage the prospective public accountant and auditor to fit himself to be more than a mere checker of figures—in fact, to make himself a business adviser.

If one hopes to become a really successful public accountant, he must study more than accountancy; he must meet requirements other than those demanded in the C. P. A. examinations. He should be a student of economics and industrial conditions; he should know public finance and taxation; and he should be somewhat familiar with market reports, business tendencies, and the politico-economic legislation of his country. Business administration and organization, corporation finance, banking, business law, office systems and management, cost accounting and efficiency work—all these form a part of the successful public accountant's fund of knowledge. He must have, in addition to all these, personality and tact.

The Value of an Audit. The value of audits and examinations is limited by their scope and nature. Normally a complete audit should be the most valuable. A limited audit or investigation can have only limited value, although many useful suggestions for improvement in accounting procedure may develop from such special examinations. For example, an examination to determine the extent of a defalcation may carry with it recommendations which may make a recurrence of such an evil practically impossible.

Outside of any special considerations, a regular audit is valuable in that it affords an external, impartial verification of business operations and the financial condition. It assures the management of the ability of an accounting department and of the reliability of its statements.

It has value for credit purposes either with the banker or with the creditor, and it is almost a necessity for the effective sale of securities. If the audit be truly constructive, it should reveal the important, vital tendencies that make for progress and profit and the forces that engender loss. It should show up the weak points in organization and the errors in accounting principle, and it should be instrumental, as far as possible, in developing the accounting procedure of a business organization. Through constructive suggestions it should actually lead to the introduction of office economies and to greater efficiency in office and general business administration.

It may be that we are somewhat sanguine in our valuation of proper audits, but it has been our good fortune to be associated with public accountants giving values such as those outlined. It is encouraging to note that among high-class practitioners an equally high value is set upon the profession of auditing.

TEST YOURSELF ON ESSENTIAL POINTS

1. What is the essential difference between auditing and accounting?
2. What are some of the essentials of training and education to qualify an auditor for public work?
3. Outline some of the real values to be derived from an audit.

Chapter II

CLASSES OF AUDITS AND EXAMINATIONS

Balance sheet audit—Complete audit—Continuous audit—Special examinations and investigations.

Audits and examinations are usually classified according to their scope and character, as follows:

1. Balance sheet audits.
2. Complete audits.
3. Continuous audits.
4. Special examinations.

Balance Sheet Audits. A balance sheet audit is confined entirely to the verification of assets and liabilities or to the trial balance accounts after closing. Every asset and liability must be verified, but yet a balance sheet audit cannot result in an unqualified certificate as to financial position. Though the Surplus Account in a balance sheet may be thoroughly analyzed and some of its component elements thoroughly tested, a true balance sheet audit precludes the detailed examination of the operations that create surplus. The auditor's certificate, following a balance sheet audit, may therefore state that the assets and liabilities as shown by the books or by the auditor's statement are correct and that they have been fully verified; but a certain qualification must be made as to the Surplus Account forming part of the net worth of the business. That qualification need not impair the value of the certificate, but it should clearly indicate that no detailed examination of operations was included in the auditor's work. Any intelligent reader having confidence in the auditor certifying to a balance sheet will readily assent to the conclusion that, if the assets and liabilities are correctly stated, the net worth, including capital invested or capital stock (both subject to complete verification) and surplus, must also be correct, at least as a totality.

Complete Audits. The most satisfactory audit, at least from the public accountant's viewpoint, is the complete, or detailed, audit. This form of audit embraces the verification not only of assets and liabilities, but also of all income and expenditure during a period; therefore, no compunctions as to conclusions need be felt by the auditor, provided, of course, that he has done his work faithfully and accurately. There is greater value in a complete audit than in a partial one, because the effects of results from operation can be very clearly associated with changes in financial position. An analysis of operations is valuable, moreover, if the auditor is of that progressive type who believes that constructive suggestions as to operating or accounting procedure have a proper place in an auditor's report.

Continuous Audits. A continuous audit may be either limited or complete in its scope and would therefore be confined to the purposes in view. But the essential feature of a continuous audit is its periodicity; it may be monthly, quarterly, or semiannually. The auditor supervises the work at intervals during a period and makes reports of progress instead of the financial and operating reports usually made at the end of a period under review. The continuous audit has the advantage of keeping the accounting staff of the concern audited on the alert, and reflects to the management very clearly, if properly done, the current tendencies of business operations. Practically all up-to-date business enterprises are equipped with accounting systems that show monthly the results from operation. Progressive business men are no longer content to wait complacently until the end of a fiscal period for a statement of profit and loss. The need for changes in pricing and the varying costs of production and of raw materials make monthly operating statements a necessity. To be sure that all these variations are properly included in the accounts, gives the continuous audit a very specific value.

Special Examinations. Special examinations are absolutely limited by their content and have in view merely the determination of some specific point. Such investigations may arise out of litigation; from suspected fraud or defalcation; from partnership disputes; from fire-loss adjustments; from the interests of patent holders in royalties; from the demands of creditors; from income tax legislation; or from a host of special interests either within a business organization or outside.

The auditor's liability and responsibility is limited by the nature of his examination or audit. In a complete audit he should assume full responsibility. In all other audits or investigations he should make his client understand that his responsibility is limited by the scope of his engagement.

TEST YOURSELF ON ESSENTIAL POINTS

1. What do you understand to be meant by a balance sheet audit? What is its scope? (From American Institute Examination.)
2. Define and state the scope of a—
 - (a) Complete audit.
 - (b) Continuous audit.
 - (c) Special examination.
 (From C. P. A. Examination.)
3. If you were engaged by a client to examine and audit his books at the end of each month, what kind of audit would you be making?

Chapter III

AUDIT OF BALANCE SHEET ACCOUNTS

CASH

Cash in bank—Proof of cash-book footings—Reconciling bank balance with cash accounts—Auditing cash where receipts are partly deposited and partly used for petty payments—Counting cash in imprest fund—Auditing cash in general—Using the rate of turnover of cash for maintaining a normal cash balance.

The audit of balance sheet accounts will be taken up in the order in which they are ordinarily arranged in the balance sheet. The first balance sheet item is cash, which is the most current of all assets.

Cash in Bank. The audit of cash in a business where all cash receipts are deposited in bank intact, and where all disbursements are by check, is fairly simple.

To begin with, a cash account constructed in this manner can be proved in total.* In other words, the entire receipts per cash receipts record should agree with the total deposits per bank statement, and the disbursements per check register should agree, after considering checks outstanding, with the bank's statement of withdrawals. If the genuineness of the bank statements has been determined and one is certain that they have not been altered, it will not be necessary to verify the footings of the cash receipts record or of the check register. The footings must be correct if they agree with the total of deposits and disbursements per bank statements, after making the necessary adjustments for deposits entered by the bank at the beginning of period audited or after period of audit which were entered on books prior to the beginning of period or before the close of the period, respectively, and after making provision for outstanding checks at the beginning and the end of the period.

* Assuming, of course, that all tests for the disclosure of any irregularities have been made.

Even though all receipts may be deposited intact, there is still a chance that receipts may not agree with deposits. This will be true if the bank deducts exchange when deposits are made. If the banker cannot be persuaded to abandon this practice and to substitute therefor a monthly statement of exchange charges to be paid by check, the depositor should pay these out of petty cash or provide a bank exchange column in his cash receipts record. When deducted from the gross receipts, it will then agree with the banker's statement of deposits. As a rule, any reputable business house can induce the bank to present monthly statements of exchange and to accept all deposits at their face value. The same procedure is in use for exchange on drafts or interest on drafts. The banks render monthly statements for both. Interest on drafts discounted can, of course, not be predetermined unless the draft be specific as to date of payment. If the draft be "at sight" or "on arrival of goods," it will be impossible to know the exact date when the draft will be paid and the proceeds delivered to the discounting bank.

Proof of Cash-Book Footings. In verifying the cash account, the auditor ordinarily secures his proof of cash-book footings by the use of the following schedule:

RECEIPTS:

Deposits for period per bank statements	\$.....
Deduct:	
Deposits included in period by bank but shown as deposited prior to period in cash receipts record	\$.....
Less entries in cash receipts record for checks canceled after entry in check register (if any) . . . . .	.....
	\$.....
Add—deposits entered in cash receipts record during period but credited by bank subsequent thereto . . . . .	.....
Total receipts or deposits per cash receipts record	<u>\$.....</u>

DISBURSEMENTS:

Total withdrawals during period per bank statements \$.....	
Deduct:	
Outstanding checks at beginning of period including in withdrawals per bank statement during period but entered prior to period on check register	\$.....
Less canceled checks entered in check register but not mailed . . . . .	.....
	\$.....
Add—Checks outstanding at end of period (included in check register but of course not shown on bank statement of withdrawals) . . . . .	.....
Total disbursements per check register	<u>\$.....</u>

Reconciliation with Bank Balance. The cash on hand at the end of the period will represent cash in bank per books. To reconcile this balance with the bank balance will require the preparation of a bank reconciliation statement, as follows:

Balance per bank statement	\$.....
Add—Deposits per cash receipts record credited by bank subsequently . . . . .	.....
	\$.....
Deduct—Outstanding checks	
Check No.	Amount
.....	\$.....
.....	
.....	
Balance per books	<u>\$.....</u>

The balance per bank statement must be verified by a certificate from the banker addressed directly to the auditor. The deposits per books during the period, not credited by the bank until the month following, should be compared with the bank statement for that month sent to the auditor direct (if he is still on the engagement) or they should be confirmed by a letter from the banker.

If an audit is made several months after the close of the period to be covered, the auditor should secure a

bank reconciliation at the time he begins the audit, and the transactions should be traced back to prove the balance to which he will be expected to certify. The outstanding checks at the close of the period could then, as a rule, be actually verified because they would have been returned by the bank. This proof of outstanding checks should be thorough and should include the inspection of the cancellation dates on the checks, shown either by perforation or by rubber stamp. If the book balance is verified at a date subsequent to the end of the period under audit, the balance at the end of the period per books can be proved in the following manner:

Balance per books (on date subsequent to end of period)	\$.....
Add—Disbursements from end of period to above date	.....
	<u>\$.....</u>
Deduct—Receipts from end of period to above date	.....
Book balance at end of period under audit	<u>\$.....</u>

In preparing a bank reconciliation statement, compare the canceled checks for the last month in detail with the check register and the outstanding checks listed from the check register. If there are checks outstanding issued prior to the last month, their nature should be carefully investigated. If any suspicion exists, the payee should be asked to pass on the validity of the check and to tell if possible why it had not been promptly cashed. If a voucher system is in operation, the vouchers authorizing payment and the bills attached should be carefully scrutinized.

In a complete audit the canceled checks should be inspected and compared with the check register; if there are direct charges to Expense or General Ledger accounts, the nature of the payments should be investigated and authorizations secured. Where a well-developed plan of internal checks exists, it is not necessary to inspect all the checks, but thorough tests of several months should be made. At any rate, the auditor should satisfy him-

self that the checks are in payment of properly authorized purposes. Though an indorsed check may serve as a receipt, the indorsement tells nothing of the basis or the validity of payment.

Case of Cash Receipts Partly Deposited. We will next consider the Cash Account where receipts are not all deposited, but are used partly for petty disbursements.

It is somewhat unfortunate that certain business men cannot be convinced that the deposit in the bank of all receipts intact is the simplest and safest method of controlling their cash, and that the practice of using currency receipts for direct cash disbursements is not only dangerous but unsatisfactory from an accounting standpoint. In auditing the Cash Account under such conditions a great deal more care must be exercised and considerably more work performed by the auditor.

In verifying the Cash Account as a whole it will be necessary to account for the receipts that have been deposited by checking them with the deposits per bank statements as well as for the receipts not deposited. After checking out the receipts deposited, consider the receipts not thus accounted for as a total, for the purpose of proving the actual currency on hand when the cash is counted. For the same purpose the disbursements must be classified as check and currency disbursements. The cash-book footings for both receipts and disbursements should be verified for the entire period, the canceled checks examined, and proper authorizations secured and inspected for the currency disbursements.

The cash balance at any time will consist of cash in bank and cash on hand. The cash on hand must be verified by actual count and the cash in bank in the manner heretofore outlined. If the actual cash balance verified is subsequent to the date to be covered by the auditor's certificate, the Cash Account must be proved back and the following form of working sheet may be used therefor:

	Bank	Currency	Total
Balance (at date of actual count) \$.....	\$.....	\$.....	\$.....
Add—Disbursements from date covered by certificate to date of actual count			
Deduct—Receipts from date covered by certificate to date of actual count			
Balance at date covered by certificate and composition of cash balance	\$.....	\$.....	\$.....

The footings of both sides of the cash book must be verified to the date when the cash is counted and the totals inserted and initialed by the auditor in ink.

As a rule, where disbursements are made out of currency receipts and the entries on the cash book intermingled with check disbursements, no voucher system is in use and the distribution of expense comes through the cash book. If this be the case, the disbursements should be vouched at the time the checks are compared with the cash book entries.

Counting the Cash. Where all receipts are deposited intact and all disbursements are by bank check, there need be no special haste in counting the cash on hand. The cash on hand will, in most of such instances, be composed of a petty cash fund operated under the imprest system. The cashier must at all times have on hand in actual cash, or in actual cash and proper receipts, the specific sum called for by the Petty Cash Fund Account in the general ledger. The actual cash should be counted and classified as paper money, silver, gold, pennies, etc., and the receipts listed in detail. If any of the receipts are for advances, they should show the proper authorizations and these in turn should be referred to the authority indicated for inspection. Checks cashed for employes or others should be listed, and the cashier instructed to cash them at once; an advance or a shortage

might easily be covered by a fictitious check in the petty cash drawer.

The counting of the cash in concerns where the receipts are not all deposited, does not vary from any other cash count. As a rule, however, it will be found that there are a larger number of items carried as cash and that the safeguarding of the cash is not so efficient. Therefore, in such cases, greater care must be exercised in inspecting all cash items.

The Cash Audit in General. It is, of course, possible in some instances to prove the Cash Account through other accounts. Thus, if all cash received comes from Accounts Receivable, the cash receipts must be the result obtained by deducting the final balance of the Accounts Receivable from the sum of the beginning balance and the sales charges for the period, provided there were no allowances, discounts, or accounts written off or adjusted. At any rate, a test of this kind would indicate the amount of credits to Accounts Receivable other than cash. If these were excessive, the knowledge thereof might prove the basis for uncovering manipulations or actual defalcations. Testing accounts through other interdependent or related accounts is always valuable, and may lead to startling disclosures.

In auditing the Cash Account the auditor should assure himself that there are no liens against the bank balance, and where concerns operate branch offices, that all cash in transit is properly accounted for.

An auditor may be able in a number of ways to give constructive advice in connection with the Cash Account. To begin with, he should show the value of depositing all receipts intact in the bank and of paying everything through bank check, the greater simplicity of handling petty cash disbursements through an imprest system of petty cash fund, and he should propose the necessary forms—cash receipts record, check register, and voucher register—to accomplish these ends.

Many business men are still of the opinion that large bank balances are highly desirable. They may add color to a balance sheet, but as a rule they indicate a weak business policy. Hoarding is elementary; to use money productively, and always productively, is the essence of progressive business. Though all surplus cash funds may not be used advantageously for expanding sales or enlarging production, they may always be placed in special deposit or savings accounts where they will draw interest; or they may be invested in readily convertible securities at even a higher rate of interest. The accountant will, as a rule, advise very wisely if he advocates income-producing uses for surplus funds and disparages excessive bank balances.

Maintaining a Normal Cash Balance. The cash of a business should be of a size commensurate with business needs. It is just as poor policy to allow the cash balance to become greater than the needs of the business as to carry excessive merchandise inventories. Both are susceptible to turnover requirements. In order to advise safely as to cash needed in any business, the auditor should recommend a thorough study of seasonal cash requirements. Such an investigation will comprise an analysis of seasonal collections, purchases, sales, pay rolls, and banking facilities. Through a study of this kind it may be possible to enlighten the client as to cash funds which he should always have available at different periods of his year's operations. In general, it may be said that he should have the minimum amount of cash necessary for a maximum turnover. The turnover of cash may be determined by dividing the total cash receipts by the average cash balance. Changes in the rate of cash turnover will be an index of managerial control of this activity.

TEST YOURSELF ON ESSENTIAL POINTS

1. Outline in the case of a balance sheet audit a program of instructions for verification of cash and bank balances. (From American Institute Examination.)
2. What steps should be taken to verify the cash balance appearing on a balance sheet of a company in whose cash book bank and cash transactions are kept together where the auditor has not had the opportunity of making the verification on the date of the balance sheet? To what points should special attention be given? (From American Institute Examination.)
3. How would you prove the cash-book footings without actually adding the columns on each page?
4. You find that a certain concern has created a petty-cash fund of \$500.00, and on December 31, you examine the fund. Outline your method of verification of this fund.
5. State how you would proceed to determine how much of a cash balance a business should normally carry.

Chapter IV

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

RECEIVABLES

Value of notes receivable as an asset—Method of verifying notes on hand and discounted—Renewed notes—Trade acceptances receivable—Verification of accounts receivable—Providing reserve for bad debts—Proving accounts receivable—Volume of receivables related to sales terms—Methods of verifying miscellaneous receivables.

Notes Receivable. The value of a note receivable as an asset depends entirely upon the nature of the note and the financial strength of the maker. If a note is given in settlement of an account, the note, although having a definite legal status, is no better than the account and may indicate financial weakness on the part of the maker. If the note is a secured one, it is a much better asset than an account receivable. Thus, notes given regularly by farmers or groups of farmers for the purchase of large agricultural implements and machinery are not only, as a rule, signed by property owners to begin with, but they are secured by the implement sold (the title to which does not pass until the note is fully paid), and very often by an additional farm mortgage. Practically all the receivables of an agricultural implement house or manufacturer are in the form of notes.

Procedure in Verification. In auditing the Notes Receivable Account, the first step is to call for the notes themselves. The account should include only notes not yet due. These may include either originals or renewed notes; the latter must be thoroughly scrutinized, and if the renewal indicates a state of weakness on the part of the maker, proper reserves should be provided or recommended. If the notes are not too numerous, they should be listed. The list should indicate the date, the maker's name, how obtained, the amount, the due date, whether original or renewal, the rate of interest—if any, and the amount of accrued interest. The makers should also be

circularized by the auditor in order to establish the genuineness of each instrument. Where the notes are too numerous for proof by circularization, the validity of the notes should be tested. Fictitious notes might easily be substituted for accounts already paid, to cover up, at least temporarily, a defalcation. In offices where the cashier's accounts are daily checked against independent mail receipts and where the accounts and notes receivable records are kept separate from the cashier's department, the chances for manipulation are greatly minimized, although collusion between departments might still exist. In other words, every possible means should be employed to fix the genuineness of the notes and to secure satisfaction of their being regular.

Notes of employes or officers should be separately listed and their nature fully determined. They should also be passed upon by someone in authority, and they should be shown separately as employes' and officers' notes in the auditor's balance sheet statement. They should also be commented on in the text of the auditor's report.

Where notes are taken in large numbers, it will not be possible either to circularize the makers or to inspect all the notes themselves. Total test proofs of values tied up in this class of receivables may be made, however, through independent sales records and cash records, and in some cases genuineness may be established through partial circularization. All notes actually in the office should be inspected, and though lists of these may not be prepared, all missing notes should be recorded. The missing notes can be readily established either from the notes-receivable register or from other records that give full details of the notes. These records are, as a rule, very complete in agricultural-implement offices. A trial balance of these subsidiary notes receivable records must, of course, be taken and compared with the controlling account.

Notes Held by Others for Collection. The notes listed as missing may be found at the branch offices of the concern, or they may be out for collection with some bank, or they may have been already paid and the cash may therefore be in transit. In such cases the branch must be asked for a certificate covering the notes in its possession and the bank should be asked to give the same. Very often cash in payment for notes out will be in transit between the collecting agency and the company whose books are being audited, with the result that the bank will not report certain notes on hand.

In writing to a bank, the auditor should request a detailed verification of notes held, and he can facilitate matters by listing the notes purported to be held by the bank from which the certificate is requested. In that case, if the bank has forwarded collections on some of the notes, it can indicate the date of forwarding. This will enable the auditor to check the receipt of cash which was in transit when the request for certificate was mailed; he must be very certain that the cash received be recorded after the date on which the notes receivable were balanced.

Renewals. Though they should be listed separately, renewed notes may not always be risky. In fact, it should be assumed that, where a good credit department exists, renewals are granted only after very thorough investigation of credit standing. Not only should past-due notes be listed separately and shown separately in a balance sheet, but proper reserves should be created to meet possible losses therefrom. The past-due notes should be so scheduled as to show under various groups how long past due they are, as a guide for proposing the proper amount of reserve. Some of the notes may be unpaid because of disputes, and it is, therefore, suggested that the makers be circularized by the auditor so that the exact status may be determined in each case.

Notes Receivable Discounted. Probably the most desirable method of showing the contingent liability for notes receivable discounted is to carry an account for them on the general ledger. When a note is discounted by the bank, instead of crediting Notes Receivable through the cash book, a Notes Receivable Discounted Account should be credited. In stating the notes receivable on the balance sheet the following form of expression should be used:

Notes Receivable	\$.....
Deduct—Notes discounted . . . . .	.....
Net amount not discounted	<u>\$.....</u>

On the other hand, if the auditor prefers to show only undiscounted notes as an asset, he may insert the contingent liability as a footnote on the liability side of the balance sheet. No matter what method be employed, it seems very desirable to credit the proceeds from discounted notes to a Notes Receivable Discounted Account, thereby showing plainly at all times the liability for a not infrequent contingency. When the bank advises payment, a journal entry will be made debiting Notes Receivable Discounted and crediting Notes Receivable. If the note is not paid, the bank must be repaid or it will charge the depositor's account, and the entry will be a debit to Notes Receivable Discounted and a credit to Cash. The delinquent debtor's note will then again be part of the regular Notes Receivable Account. If no renewal is provided for, the protested note and the protest fees, etc., should be charged to the maker of the notes and Notes Receivable credited. The processes just outlined will not only keep constantly before a manager the contingent liability for notes discounted, but will also assure him that his regular Notes Receivable Account is composed of unmatured notes.

Trade Acceptances Receivable. A trade acceptance arises in connection with a domestic sale of goods. The seller

draws a draft on the buyer who upon acceptance writes across the face "Accepted (date), payable at (place)," with his signature. The acceptance then constitutes a promise to pay the amount of the draft at its maturity. It is practically the same as a promissory note. Trade acceptances, however, are generally regarded more favorably than notes for rediscounting purposes because they are based upon actual transactions and bear the names of the acceptor and the drawer. The procedure for verification is the same as for notes receivable.

Accounts Receivable. The trial balance of the accounts receivable ledger should be checked with the balances shown in the individual accounts in the ledger. The total sum of these balances should, of course, agree with the general ledger controlling account.

A thorough scrutiny of the accounts-receivable ledger should be made and a schedule prepared of all accounts past due. The past-due accounts may be grouped as follows:

30 to 60 days past due.

60 to 90 days past due.

90 days to 6 months past due.

6 months to one year past due.

Over one year past due.

Not only is a schedule of this kind of value as an aid in constructing an adequate reserve for bad and doubtful accounts, but also in a way it indicates the efficiency of the credit and collection department. In analyzing an account to fit the schedule proposed, one will often find that some of the balances represent old charges, whereas more recent charges have been promptly paid. The chances are, in such case, that the old items are in dispute, that goods returned have not been credited, that they represent duplicate charges, or that allowances may still be due the customers. Accounts of this nature should always be circularized by sending a statement

with a request for verification or explanation direct to the auditor.

Reserve for Bad Debts. The accounts over a year past due should be reserved for in full and should be transferred into a suspense ledger. Some reserve should also be provided for accounts less than a year past due. As a rule, the total amount to be reserved may be fixed on a percentage of losses to sales basis. The past experiences of the company audited must be the basis of fixing this percentage. The auditor should recommend that accounts reported as uncollectible be written off against the reserve. It is recommended that accounts so written off be thoroughly investigated and that their uncollectibility be vouched for by someone in authority. Much petty thievery has been committed in connection with accounts written off that were subsequently collected secretly by some enterprising, unscrupulous bookkeeper. In almost every instance, after all other methods have failed, bad and doubtful accounts should be reduced to judgments against the debtors, and levy should be had as quickly as the laws permit. All court costs should be charged to the debtors' accounts.

The auditor should report separately sales to debtors on dates subsequent to past-due charges. Such a condition is a decided indictment of a credit department's efficiency. All old balances should be liquidated before additional sales are made, unless the sales be made on a basis of cash in advance. Even under the last circumstance some concerns have adopted the practice of applying the cash on the old account and of calling for an additional remittance if more goods are desired. This latter practice, when conducted tactfully, has been quite successful, due largely to the fact that the debtor has experienced a great need for the creditor's product.

Slow accounts in which the monthly balances are constantly increasing, are as a rule an indication of consid-

erable financial weakness, and these accounts should be called to the attention of someone "higher up." Accounts in which remittances for round amounts rather than for specific charges are indicated, should be carefully examined and circularized. Journal credits to Accounts Receivable should never be passed without close investigation, and the credits should bear proper authorizations.

Proving Accounts Receivable. The Accounts Receivable as a total should be proved through the sales records and cash books. This may be done by preparing the following schedule:

Accounts Receivable at beginning of period	\$.....
Add—Charge Sales for period (as per sales records) . . . . .	.....
	\$.....
Deduct—Cash received (as per cash book), discounts, allowances, and returned goods for period (as per allowance records, etc.) . . . . .	.....
Accounts Receivable at end of period	\$.....

The total of allowances, discounts, and returned goods should be compared on a percentage to sales basis with the same deductions in prior years in order to determine their normality and, even after that, all deductions of this nature should be thoroughly examined, or tested, and assurances obtained that they were regular and were properly authorized.

Ratio of Accounts Receivable to Sales. It is apparent that, if commodities are sold according to certain terms of payments, the volume of receivables outstanding at any time should be related to the terms of sales. For example, if it is assumed that all goods are being sold on terms of 2 per cent cash, net 30 days, the accounts receivable outstanding which are entirely good should not be much in excess of one-twelfth of the annual sales, unless, perchance, the business is of a decided seasonal nature. If the latter condition prevails, then the accounts

should fluctuate with the seasonal condition and should represent a normal fraction (based upon sales terms) of the seasonal sales.

After the old, bad, and admittedly slow accounts are eliminated from consideration, it might be safe to conclude that the volume of accounts receivable should be in that ratio to total annual or seasonal sales which the sales terms bear to said sales. Therefore, a concern selling strictly on a 60-day-settlement basis without a discount privilege, should show receivables equal to approximately one-sixth of the annual sales, provided the business is not seasonal. If this ratio does not exist after the eliminations above referred to are considered, it may be quite safely assumed that either the collection department has been negligent or that general business conditions are not normal. At any rate the remedy is apparent in either case. If the collection department is at fault, the recommendations are obvious. If the business conditions are poor, then greater caution must be exercised by the credit department.

Officers' and Employees' Accounts. The accounts of officers and employees should not be kept in the accounts receivable ledger unless they are charges for regular product sold. If they represent advances or charges of another kind, they should be in the general ledger or, if too numerous, in a separate ledger. The auditor should discourage accounts of this nature, for a company has no obligation to advance moneys to officers. The funds of any organization should be used in fostering the purposes underlying it and not in making loans to officers and employees. It has happened that officers of corporations have withdrawn large sums of money which were charged to their accounts but which they were subsequently unable to repay; such practices are clear cases of misappropriation of funds, and yet they are not uncommon and often go on without arousing much criticism until a wide-awake stockholder protests.

Whenever accounts of this nature are found in the accounts receivable ledger, they must be scheduled separately by the auditor, their nature and age determined, and proper approval secured for them. They should be separately stated in the auditor's balance sheet and fully explained in his report.

Consignment Accounts. In some businesses the auditor will find that goods shipped on consignment are treated as an ordinary sale. Upon discovering that the company ships some of its goods on consignment, the auditor should examine the customers' accounts carefully to determine if the consignments are carried in the accounts receivable. Such consignments should be eliminated from the accounts receivable and the sales and set up as an addition to the inventory at the proper cost valuation.

Installment Accounts. In a trading business the auditor will frequently find that goods are sold on an installment basis. In some installment sales title passes to the buyer only after the last payment is made, while in others the title passes with the receipt of the initial payment or a certain number of payments, and a chattel mortgage is taken for the balance. Although installment accounts should be examined and verified in practically the same way as customers' accounts, the auditor must determine from the terms of the contract whether the seller has the right of repossession in case the buyer defaults in his payments and, if so, whether in case of past-due accounts repossession has taken place or whether the dates of payments have been extended. If goods have been repossessed the auditor must see that both the customers' accounts and the inventory of repossessed goods have been properly adjusted.

Stock Subscriptions Receivable. In the case of a new company, there may be found subscriptions to the stock issue still carried as receivables. It is now a common practice for a company to sell its capital stock to em-

ployes on a partial-payment plan. Stock sold to employees is usually held by the company until final payment. The accounts should be checked to see that the terms of the sale have been complied with; that the payments have been deducted regularly from the salaries of the employees; and that any calls demanded by the directors have been met. The verification of stock subscriptions is subject to an inspection of the minutes of the board of directors and stockholders meetings.

Claims. Claims against railroad and express companies are frequently set up in special claim accounts. The validity of each claim must be verified by examining the correspondence and conferring with the official filing the claim. The claim may not be allowed in full. It may be conservative to provide a reserve for any claims that appear doubtful or uncertain as to the actual amount that will be collected.

Deposits on Contracts. Where deposits on contracts are made, subject to refund in case certain conditions in the contract are not carried out, the amount so received should be carried as a receivable. The condition under which deposits are refundable should be verified.

Accrued Interest Receivable. In the audit of notes and accounts receivable, and investments such as bonds and mortgages, the auditor must obtain therefrom all data necessary for computing the amount of interest accrued and not due. Accrued interest is considered a current asset under the receivable section of the balance sheet.

TEST YOURSELF ON ESSENTIAL POINTS

1. Explain why an auditor should not be content with merely taking off a trial balance of the customers' ledger and reconciling the aggregate balances with the balance in the control account. To what other sources should he go to help him determine the asset value of customers' accounts?

2. Outline your method of verifying the accuracy of accounts receivable from trade customers in a balance sheet audit. (From C.P.A. Examination.)

3. Do you consider the periodizing of the outstanding accounts-receivable balances as the best method of determining the adequacy of the reserve for bad debts? Give reasons. (From American Institute Examination.)
4. On February 15, 1924, you are called upon to audit the books of a concern for the calendar year 1923. State in detail how you will verify as of December 31 the balance sheet item-notes receivable. (From C.P.A. Examination.)
5. How should Notes Receivable indorsed and discounted at the bank be treated on the balance sheet?
6. How would you verify the correctness of the value of notes receivable discounted?
7. Under what circumstances is it desirable for the auditor to circularize the customers' accounts receivable?
8. You find on checking the customers' ledger a number of accounts with credit balances. How should amounts of this character be treated on the balance sheet?
9. What items are listed sometimes as accounts receivable that do not properly belong there? How would you present them on the balance sheet?
10. In the verification of notes receivable, you find a number of notes not in file for inspection. What means would you employ to verify their existence and value? In case some of them have been pledged as collateral to secure a loan, how would such notes be presented on the balance sheet?

Chapter V

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

INVENTORIES

Rules for checking and verifying inventories—Check on inventories when a cut-off occurs—Valuation Cost records to show cost values—Inventories taken by the auditor—Providing inventories—Applying the gross-profit test—How to maintain balanced inventories—Determining overinvestment in inventories—Inventories in relation to income tax—Valuation of goods in process and finished goods—Methods of inventorying not allowed in computing income tax.

Inventories. There has, of late, been considerable discussion on the subject of the auditor's responsibility as to inventories. Some take the extreme position that the auditor should accept an officer's certificate as final and go no further than checking the arithmetical accuracy of the inventories and the pricing. Others might add the gross-profit test, whereas there are some who advocate actually testing the inventories by counting certain portions or sections thereof and by securing a quantity proof through production and sales.

We can see no more valid reason for accepting an inventory on certificate only than for accepting a bank balance on certificate only. Actually to prove the Cash Account or the cash balance implies more than a mere bank reconciliation. The composition of the Cash Account must be investigated, the nature of the receipts and disbursements should be inspected, and the authorizations for cash expenditures secured. Inventories and stores records are as vital to a business as cash balances and cash books; both are concerned with convertible values, and it is just as essential that no irregularities appear in the one as in the other.

Government Rules for Inventories. The rules for checking and verifying inventories have been so well formulated by the Federal Reserve Board of the United States

Government in their bulletin entitled *Uniform Accounting* as to warrant their inclusion in full herewith:

1. Secure the original stock sheets if they are in existence and carefully test the typewritten copies with them and with tickets, cards, or other memoranda that show the original count.
2. See that the sheets are certified to or initialed by the persons who took the stock, made the calculations and footings, and fixed the prices, and satisfy yourself that they are dependable and responsible persons. Obtain a clear and detailed statement in writing as to the method followed in taking stock and pricing it; also a certificate from a responsible head as to the accuracy of the inventory as a whole.
3. A thorough test of the accuracy of the footings and extensions should be made, especially of all large items.
4. The inventories should be compared with the stores ledger, work-in-progress ledgers, and finished product records and stock records as to quantities, prices, and values, and any material discrepancy should be thoroughly traced.
5. Where stock records are kept and no physical inventory is taken at the time of the audit, ascertain when the last physical inventory was taken and compare it with the book records. If no recent comparison is possible, select a few book items of importance and personally compare with the actual stock on hand.
6. Where no stock records are kept, a physical inventory should be taken, preferably under the general direction of the auditor. After the inventory is completed he should apply the same tests to verify its accuracy as if the inventory had been taken before his arrival upon the scene.
7. When the cost system of a company does not form a part of the financial accounting scheme, there is always a chance that orders might be completed and billed but not taken out of the work in progress records. Especially is this the case when reliance is placed on such records to the extent that a physical inventory is not taken at the end of the period to verify the information shown therein. In these cases the sales for the month preceding the close of the fiscal period should be carefully compared with the orders in progress as shown by the inventory, to see that nothing that has been shipped is included in the inventory in error. Cost systems which are not co-ordi-

- nated with the financial accounts are unreliable and frequently misleading. Special attention should be called to every case in which the cost system is not adequately checked by the results of the financial account.
8. Ascertain that purchase invoices for all stock included in the inventory have been entered on the books. Look for postdated invoices and give special attention to goods in transit.
9. See that nothing is included in the inventory which is not owned but is on consignment from others. If goods consigned to others are included, see that cost prices are placed thereon, less a proper allowance for loss, damage, or expenses of possible subsequent return. This does not include goods at branches, as the valuing of such stocks will be governed by the same principles as apply at the head office.
10. Ascertain that nothing is included which has been sold and billed and is simply awaiting shipment.
11. If duties, freight, insurance, and other direct charges have been added, test them to ascertain that no error has been made. Duties and freight are legitimate additions to the cost price of goods, but no other items should be added except under unusual circumstances.
12. As a check against obsolete or damaged stock being carried in the inventory at an excessive valuation, the detailed records for stores, supplies, work in progress, finished products, and purchased stock in trade should be examined and a list prepared of inactive stock accounts, which should be discussed with the company's officials and satisfactory explanations obtained.
13. The auditor should satisfy himself that inventories are stated at cost or market prices, whichever are the lower at the date of the balance sheet. No inventory must be passed which has been marked up to market prices and a profit assumed that is not and may never be realized. If the market is higher than cost, it is permissible to state that fact in a footnote on the balance sheet.
14. It may be found that inventories are valued at the average prices of raw materials and supplies on hand at the end of the period. In such cases the averages should be compared with the latest invoices in order to verify the fact that they are not in excess of the latest prices, and also with the trade papers, when market prices are used, to see that they are not in excess of market values.

15. Make an independent inspection of the inventory sheets to determine whether or not the quantities are reasonable and whether they accord in particular instances with the average consumption and average purchases over a fixed period. Abnormally large quantities of stock on hand may be the legitimate result of shrewd foresight in buying at a low market but may, on the other hand, arise from serious errors in stock taking.
16. Always attempt to check the totals by the gross-profit test and compare the percentage of gross profit shown with that of previous years. In a business where the average gross profit remains fairly constant, this test is a dependable one, because, if the rate of gross profit is apparently not maintained and the discrepancy can not be satisfactorily accounted for by a rise or fall in the cost of production or of the selling price, the difference will usually be due to errors in stock taking.
17. In verifying the prices at which the work in progress is included in the inventory, a general examination and test of the cost system in force is the best means of doing this work satisfactorily. In a good cost system little difficulty will be found with the distribution of the raw materials, stores, and pay roll, but the distribution of factory overhead cost is one that should receive careful consideration, the main points to be kept in view being:
 - (a) That no selling expenses, interest charges, or administrative expenses are included in the factory overhead cost.
 - (b) That the factory overhead cost is distributed over the various departments, shops, and commodities on a fair and equitable basis.
18. No profit should be included in the price of finished products or stock in trade. The price list should be examined to see that the cost prices of stock are below the selling prices after allowing for trade discounts, and, if they are not, a reserve should be set up on the balance sheet for this loss. If the company takes immediate steps to increase the selling price, however, the amount of this reserve may be limited to the loss on goods which may have been sold since the close of the period to the date of the discovery.
19. In case of companies manufacturing large contracts it is frequently found necessary to make partial shipments thereof. The question then arises as to whether it is per-

- missible to include the profits on these partial shipments in the Profit and Loss Account. As a matter of fact, it is evident that the actual cost can not be known until the order is completed. It may be estimated that a profit will ultimately be made, yet unforeseen conditions, such as strikes, delays in receiving material, etc., may arise to increase the estimated cost. It is better not to include the profits on partial shipments, but information of this character which may have its influence in the decision of the banker upon a proposed loan may properly be laid before him. Of course, an exception should be made in cases where the profit on the partial shipments largely exceeds the selling price of the remainder of the order.
20. The selling prices for contract work in progress should be ascertained from the contracts, and where it is apparent that there will be a loss on the completed contract, a due proportion of the estimated loss should be charged to the period under audit by setting up a reserve for losses on contracts in progress.
 21. If a company has discontinued the manufacture of any of its products during the year, the inventory of such products should be carefully scrutinized and, if unsalable, the amount should be written off.
 22. The inventory should be scrutinized to see that no machinery or other material that has been charged to plant or property account is included therein.
 23. Partial deliveries received on account of purchase contracts for material, etc., should be verified by certificates from the contractors, both as to quantities and prices.
 24. Advance payments on account of purchase contracts for future deliveries should never appear in an inventory, but be shown on the balance sheet under a separate heading.
 25. Trade discounts should be deducted from inventory prices, but it is not customary to deduct cash discounts. However, this may be done when it is the trade practice so to do.
 26. While the inventory is being verified, the auditor should ascertain the aggregate sales for the last year. If the turnover has not been rapid, it may be due to a poor stock of goods. Some business men dislike to sell below cost and would rather accumulate a big stock of old goods than dispose of the old and unseasonable stock at a sacrifice. The usual outcome is that the stock becomes unwieldy and funds are lacking to purchase new goods.

The inventory and the gross sales, may, therefore, have a direct connection.

27. It may be well to reiterate that interest, selling expenses, and administrative expenses form no part of the cost of production, and therefore should not be included in the inventory in any shape.

Formula Inventories. In some concerns where production is by formula it is a fairly simple process to verify inventories, provided one is satisfied that the inventory at the beginning of the period and the purchases during the period are correct. In such a case it will be necessary only to multiply the total of each class of product sold by the formula for each class and to prove the production in process by material requisitions. The following table of proof might be found useful in this case:

Inventory at beginning (by quantities of each class of raw material) . . . . .	.....
Add—Purchases (segregated as above) . . . . .	.....
	
Deduct:	
Sales made during period (by quantities and classes as above, based on formula) . . . . .	.....
Materials in process at end of period (based on requisitions for uncompleted production) . . . . .	.....
Materials included as per formula in finished goods inventory at end of period . . . . .	.....
Raw Material Inventory at end of period (segregated by classes) . . . . .	.....

This table will afford a total proof for raw materials inventory, and will, at the same time, if the raw materials inventory checks, establish the correctness of the inventories in process and of finished goods. If the raw materials total does not agree with the actual inventory presented to the auditor, then something must be wrong with the actual inventory itself, with the inventory of finished goods, with the inventory of goods in process,

with the sales, with the formula, or with the beginning inventory.

Cut-Off Inventories. There are certain types of manufacturing industries where a very accurate check can be had on inventories through so-called "cut-offs." By "cut-offs" are meant such points in production where materials have been completely used up and there is no stock on hand. Whenever a cut-off occurs, the book inventories are corrected if they need correction. If the cut-offs are frequent, then the elements productive of differences between book inventories and physical inventories can be readily traced and thereby practically eliminated. Wherever these cut-offs are used to adjust inventories, it is a simple task to prove the inventories at the end of a period by tracing purchases and production from the date of the last cut-off. Beginning inventories can also be very readily traced and verified.

Valuation of Inventories. Many business men are quite willing to concede that inventories for published statements should be valued at cost or market, whichever is the lower, but they are not very willing to write down their book inventories to market and thereby to disrupt their entire stores records. Nor are they willing to set up a reserve for the differences between market and cost prices when the next month may show a market price much in excess of costs. The limit to which most executives will go is to make a charge to Profit and Loss at the end of the year with a corresponding credit to the Inventory Account, which entry they will order reversed at the beginning of the next fiscal period by charging Inventory and crediting Surplus. The justification for this procedure is that the inventory shrinkage represents a temporary condition only, which should be reflected in the balance sheet at the close of the year, but that the actual loss from shrinkage cannot occur until the goods are sold—if it occurs at all. If the article is a finished

one, the market price will affect it; if it is raw material and becomes part of a finished product that has no determined market price, then fluctuations in prices of raw material (unless very marked) would probably have no bearing whatsoever on the sales price. Selling prices are, as a rule, based on costs rather than on market quotations of raw materials entering into finished product; at least this is true of the vast majority of producers and manufacturers. Producers of grain products or staple foods are, of course, more or less affected by fluctuations in prices of raw materials, and current reserves for such fluctuations might well be used as a guide in price making; but the greater percentage of manufacturers must operate on the basis of costs rather than on market quotations.

Cost Records to Show Cost Values. The auditor should insist, therefore, that the balance sheet, which is prepared on the basis of valuations, take cognizance of fluctuations down from cost price in inventories; but he cannot insist that the stores records be changed accordingly. The stores records should always be stated at cost so that the real costs of production may be determined. The shrinkage is bound to show up in sales made at a reduced price subsequent to inventory taking. The matter had best be handled through the two following journal entries, the first made on the closing day of a fiscal year, the second on the first day of the succeeding fiscal period:

December 31, 1925	
Profit and Loss	\$.....
Inventories (or Inventory Reserve)	\$.....
To record shrinkage in inventories representing difference between market and cost.	
January 1, 1926	
Inventories (or Inventory Reserve)	\$.....
Surplus	\$.....
To re-establish inventories to cost prices, reversing entry of previous year.	

Under the above-mentioned methods the controlling accounts for stores will not be affected, the stores ledgers themselves will not be changed, and yet the true value of inventories will appear in the balance sheet at the close of the year.

Inventories by the Auditor. In instances where inventories have not been taken and it becomes the auditor's duty to take the inventories or supervise their taking, very few if any risks are assumed by the auditor in giving an unqualified certificate as to inventories. In fact, one is inclined to believe that under such conditions the auditor is placed in a very enviable position because he has something definite and tangible to work from. From the inventories taken by him he can prove back the inventories at the beginning of the period, and by the use of the two he can further prove the sales and the production.

Proving Inventories by Quantities or Values. Let us assume that the auditor himself, his staff, or men under his supervision, have taken the inventories. To prove the beginning inventory (in quantities rather than by values) the following table could be used, provided the various classes of merchandise were not too numerous:

	Commod- ity A	QUANTITIES Commod- ity B	Commod- ity C
Inventory Raw Materials at end of year (actual)			
Add—Quantities sold (or in case of manufacturer, quantities sold, in process, and in finished inventory)			
Deduct—Quantities purchased during year			
Inventory Raw Materials at beginning of year			

The next step, in the case of a manufacturer, will be to prove the inventories of finished goods and goods in process at the beginning of the year. The following table can be used to prove the inventory of finished goods:

Inventory:

	QUANTITIES	
	Class A	Class B
Finished Goods at end of year (actual)		
Add—Sales during year		
		
Deduct—Production of Finished Goods during year		
		
Finished Goods Inventory at beginning of year		

The goods in process inventory at the beginning of the year may be proved as follows *in values*:

Goods in Process at end of year (actual)	\$.....
Add—Cost of Goods Finished during year . . . . .	.....
	\$.....
Deduct—Total Production Costs during year . . . . .	.....
Value of Inventory in Process at beginning of year	\$.....

The following table may be used to prove the production of finished goods:

Sales of Finished Goods during year, at cost	\$.....
Add—Inventory at end of year (actual) . . . . .	.....
	\$.....
Deduct—Inventory at beginning of year . . . . .	.....
Production	\$.....

Sales may be proved in quantities as follows:

Production during the year	\$.....
Add—Inventory Finished Goods at beginning of year . . . . .	.....

Deduct—Finished Goods Inventory at end of year (actual) . . . . .	.....
Sales for year	\$.....

Gross-Profit Test. Whenever an inventory looks dubious to an auditor, it has been found good policy to apply the gross-profit test. For purposes of illustration we might assume that the inventory at the beginning of the period under audit was valued at \$20,000.00 and that the purchases during the year amounted to \$50,000.00, making a total of \$70,000.00 to be accounted for. If the sales during the year amounted to \$50,000.00 and the gross profit on sales for previous years was 25 per cent of cost, then \$50,000.00 would represent 125 per cent. The cost of goods sold during the year should therefore be $\$50,000.00 \div 1.25$, or \$40,000.00, which, when deducted from the sum of beginning inventory and purchases (\$70,000.00), would leave \$30,000.00 as the approximate value of the inventory at the end of the year. If the physical inventory varied a thousand or a few thousand dollars from the test figure, such a difference might be readily explained through variations in sales prices, extraordinary fluctuations in purchase prices, etc.; but if, after providing for such unusual conditions, the inventory still varied from the test check by thousands of dollars, then a thorough investigation would be called for.

Where a proper cost system exists, the verification of inventories is much simplified. The cost department itself will have records which should closely agree with the inventories of finished goods and goods in process, and the stores ledgers, being operated on the perpetual-inventory plan, should show balances agreeing very closely with the physical inventories. In fact, the controlling accounts for Stores, Inventory in Process, and Finished Goods should practically check with the physical inventories. By making a fairly complete examination of the stores system and the cost system, the auditor can determine quite accurately the validity of the inven-

tories presented to him. This is especially true where the cost system is tied up with the general books of account.

Balanced Inventories. Many public accountants believe they have performed a thorough task when they have verified the quantities, prices, values, and total extensions of an inventory. That work is necessary, but we wish to suggest in addition a somewhat more constructive service which looks into the nature and relationship of the various classes of commodities to production or sales requirements. The auditor should try to answer the following questions not only for his own satisfaction but in order to guide his client:

1. How much of the stock is obsolete?
2. Is the obsolete stock a total loss or may it be used to advantage in any contemplated production?
3. May some new production be planned, particularly with the object of using the apparently otherwise obsolete stock?
4. If a mercantile establishment (wholesale or retail) may a new demand be created?
5. If no use can be found for such stock, how can it be most advantageously disposed of?
6. Is the admittedly usable stock so proportioned (in quantities) as to meet either the production or the sales plans and requirements of the client? In other words is the inventory properly balanced?

Suppose a manufacturer fabricates one product and that this product is composed of the following units of raw material:

Material A	6 units
Material B	3 units
Material C	5 units

14 units

A properly balanced inventory would show stock on hand which would approximate quite closely the ratios existing between the commodities, because these are the proportions needed in making the product. Again, if the production program calls for a 60-day turnover, it would

apparently be proper to have the proportioned inventory take care of 60-days production at all times. Assuming the inventory to be adequately proportioned, are the quantities in excess or under the 60-day production requirements? Caution should be advised in either case, because a shortage may cause an interruption in production, whereas an overage indicates a poor buying and financing policy. At any rate, with a given production program and turnover, the auditor will find himself in a position to recommend proper maximum and minimum indexes for stores control.

Determining Overinvestment in Inventories. By inspecting the inventory in the manner suggested, it is possible for the auditor to indicate quite accurately any overinvestment of funds. Funds should not be tied up in inventories beyond an amount necessary to conform with production or sales requirements. It is not uncommon among business concerns to find large sums thus uselessly inactive, and at the same time find these concerns borrowing considerable money to meet other needs.

Sometimes variations from a proportioned or balanced inventory may exist, and yet the business may be properly managed. Such variations would appear under the following conditions:

1. Wherever and whenever it became advisable for an industry to buy beyond its needs because of especially desirable prices. Such a plan is ordinarily not desirable, however, because it is pure speculation, and a later price decline may prove disastrous.
2. When certain classes of merchandise or materials are more promptly delivered than others. For example, if it took sixty or ninety days to secure certain goods, whereas others could be readily obtained within a few days from date of order, it would be foolish to carry even the proportioned amount of the latter on the basis of a fixed turnover expectation, and, at the same time, it would be necessary to carry a proportionately heavy stock of the slowly-delivered goods.

INVENTORIES AND INCOME TAX

Inventories to Conform to Tests. The importance of proper valuation of inventories is strongly emphasized by the Federal Revenue Acts and the Regulations of the Treasury Department. Under these Acts and Regulations we find that there are two tests to which inventories must conform:

1. They must be in accord with the best accounting practices of the trade or business.
2. They must clearly reflect the income.

As a result, rules governing inventory taking and valuation cannot be uniform for all businesses, but must harmonize with the customs and practices which have become current in particular trades or businesses. However, these customs and practices must come within the scope of the best accounting methods in a particular trade or business. In order to reflect income clearly, the inventory practice of a taxpayer should be consistent from year to year. In fact, the government attaches greater weight to consistency than to any particular method of inventory taking or valuation as long as these latter two factors are substantially in accord with the regulations. As a rule, the inventories used by a taxpayer in his balance sheet to show financial position are satisfactory for purposes of reflecting income, provided, of course, that the proper accounting practices and principles have been followed.

Inventories are generally valued by accountants at cost or market, whichever is the lower, or at cost only. Either of these bases is in conformity with the requirements of the Revenue Act although public accountants, as a rule, prefer the "cost or market, whichever is the lower," method. The Revenue Acts clearly specify two methods for merchants and manufacturers, namely:

1. Cost.
2. Cost or market, whichever is lower.

Illustration. The B corporation has the following items of materials in its raw material inventory:

Description	Cost Price	Market Price
A	\$100.00	\$120.00
B	90.00	85.00
C	50.00	55.00
D	80.00	75.00
E	150.00	100.00
Total	<u>\$470.00</u>	<u>\$435.00</u>

If the first method of valuation were adopted (that is, all at cost) the inventory would be stated at \$470.00. The market value of the entire lot is \$435.00, but if the second method were used (cost or market, whichever is lower), \$435.00 would not represent the valuation because the second method implies the application of the "cost or market, whichever lower," principle to each class of materials, so that the valuation according to the second method would be computed as follows:

Description	At Cost Because Lower	At Market Because Lower
A	\$100.00	
B		\$ 85.00
C	50.00	
D		75.00
E		100.00
Total	<u>\$150.00</u>	<u>\$260.00</u>

Items at Cost (Lower than Market)	\$150.00
Items at Market (Lower than Cost)	260.00

Inventory at Cost or Market, Whichever Lower . \$410.00

Valuation of Goods in Process. It is fairly simple to value an inventory of raw materials or supplies, or of the merchandise of a wholesaler or retailer, but a manufacturer has inventories of goods in process of manufacture and finished goods. Goods in process and finished goods contain not only materials and supplies from the store-

rooms but labor and manufacturing overhead besides; their value in the manufacturer's books is at cost. If, therefore, the "cost or market, whichever lower," method of valuation is to be applied to goods in process or to finished manufactured commodities, it is at once apparent that the composition of costs charged to these inventories must be determined. Wherever a good cost system exists, the separation of all cost elements in the "in process" and finished goods inventories is simple enough, and even in cases where the cost system is inadequate, the material element of finished goods can be quite readily determined. In connection with an up-to-date cost system, the following controlling inventory accounts are generally found in the general ledger:

- | | |
|----------------------------|----------------------|
| 1. Raw Materials. | 3. Goods in Process. |
| 2. Manufacturing Supplies. | 4. Finished Goods. |

The Raw Materials Account represents constantly the balance of raw materials on hand. The account is opened with the balance of materials or stores on hand at the beginning of the year, charged each month with the total purchases placed in the storerooms plus any freight or other proper charges, and credited each month with the values of materials that have been withdrawn for production purposes (generally on the basis of requisitions that are chargeable to specific jobs or production orders). The amount credited to the Raw Materials Account is charged to Goods in Process Account.

Manufacturing supplies are also charged to Goods in Process as used, although generally as an element of factory overhead and, in view of the fact that they are lost in the processes of manufacture, they are inventoriable only in their original unused state.

Goods in Process Account is opened with the values of such goods at the beginning of the year. At the end of each month the account is charged (as already indicated) with the value of raw materials going into production, with all direct labor employed in production, and with

those factory overhead expenses which are actually chargeable to production, such as depreciation, insurance, taxes, repairs, indirect labor, light, heat, and power, etc. Interest on the investment is not to be considered as an element of cost for inventory valuation. At the end of each month, the Goods in Process Account is credited with the total cost of all goods finished during the month, the offsetting charge being made to Finished Goods.

Finished Goods Account is opened at the beginning of the year with the value balance of finished goods on hand. It is charged at the end of each month with the finished goods received from the production department (that is, from goods in process) and credited with the full cost value of all finished goods sold, the charge going to Cost of Sales Account.

We have already indicated the ease with which raw materials may be valued at cost or market, whichever lower, but the valuation of goods in process and finished goods on this basis is somewhat more complicated, because we have not only materials to deal with but direct labor and factory overhead in addition. Where a good cost system exists, these elements of cost can be readily identified by means of cost records for both goods in process and finished goods. However, where no cost system exists, it is quite impossible to determine these components in the inventory of goods in process, and it is generally possible to obtain only the material element in the inventory of finished goods.

Case of Valuation with Proper Cost Records. We will first discuss these problems in connection with manufacturing plants that employ proper cost systems. In such cases production costs are generally tabulated by production orders or job orders. The requisitions for raw materials which are credited to raw-materials inventory accounts are charged to specific job or production orders. The direct labor is also charged to these orders, and the same is true of the factory overhead applicable to the

manufacturing processes involved in making the goods. When orders or jobs are finished, the entire cost of these orders (material, labor, and overhead) is credited to the Goods in Process Account composed of all the orders in process, and the remainder or debit balance in the account represents those orders or jobs not yet completed. To these latter have been charged various lots of raw materials, direct labor, and overhead. At the end of the year it is, therefore, possible to tabulate the entire inventory of goods in process in terms of raw materials, direct labor, and factory overhead by listing the job or production-order numbers which make up the Goods in Process Account. Such a statement will, of course, be at cost and the application of market prices as far as raw materials are concerned will resemble the former tabulation presented. Goods in process are generally of such recent creation that changes in labor rates would be negligible. However, where the in-process order has been in the plant for a long time, the labor rates should be investigated, and if they have gone down, the lower rate should be used. As a rule, nothing can be done with the factory overhead except to make certain that only the normal overhead has been charged. This matter will merit some more discussion later on. A goods-in-process inventory valued at cost or market, whichever is lower, might appear in tabulation somewhat as follows:

MATERIAL VALUATION					
Prod. Orders	Material	Cost	Market	For Inventory	Total Inventory Values
101	A	\$50.00	\$60.00	\$50.00	
	C	5.00	5.50	5.00	
	D	8.00	7.50	7.50	
	E	15.00	10.00	10.00	\$72.50

DIRECT LABOR VALUATION					
Hours	Cost Rate	Total	Present Rate	For Inventory	
20	\$1.00	\$20.00	\$0.90	\$18.00	
30	.80	24.00	.80	24.00	
					42.00
Factory Overhead					50.00
Total Cost for Inventory Purposes					\$164.50

The above is illustrative of one of the probable many orders composing the Goods-in-Process Account but the advantages of applying the "cost or market, whichever lower" rule throughout is readily apparent.

The finished goods inventory can be handled in the same way as goods in process. The completed cost records for all goods finished are available in a cost department, and the separation of the materials, direct labor, and overhead elements is there. The process of tabulation for inventorying at cost or market, whichever is lower, would, therefore, be much the same as for the goods in process, although it might be possible that certain additional overhead items might have to be added.

Valuing Inventories without Cost System. Where no cost system exists and, therefore, no perpetual inventory and no identification of lots of materials in process, as well as no clear separation between the labor element in finished goods and in goods in process, one is limited in valuing inventories at cost or market, whichever is lower, to the raw materials on hand as raw materials (of which a physical inventory can be taken) and to the raw-material and purchased-parts contents of the finished inventory, and, then only, in so far as these materials and parts can be clearly identified. Without an adequate cost system the value of goods-in-process and finished-goods inventories must be more or less of an estimate unless values can be fairly fixed by some process of elimination. The danger of an elimination process is that the elements of waste in production cannot be determined and thus an expense may become a part of inventory.

In valuing the inventories of goods in process and finished goods, care must be exercised so that only actually utilized factory overhead expenses are included. Unless only that overhead which contributes to production is made part of inventory value, the inventory may be inflated so as to include either all or part of the cost of

idle capacity which is a pure business loss. This means that factory overhead must be charged to production on the basis of some rate which reflects a normal condition of operations. Such a normal rate should, therefore, form the factory-overhead content in inventory valuation. Any overhead which is expended beyond that included at the normal rate in inventories of goods in process and finished goods will then become an expense or loss, i.e., a deductible charge in computing gross income for tax purposes.

Illustration. The C corporation has sales of \$500,000.00. Inventories at the beginning of the year were valued at \$100,000.00, purchases during the year amounted to \$300,000.00, and the inventory at the end of the year was valued at \$150,000.00. Direct labor amounted to \$25,000.00, and all factory overhead \$50,000.00; that is, 200 per cent of direct labor. The plant worked at only 60 per cent of normal capacity. Nevertheless goods in process and finished goods were valued at the end of the year on the basis of adding 200 per cent overhead (the actual overhead) to the direct labor content in these inventories, the calculation being as follows:

INVENTORY AT END OF YEAR	
Raw Materials (At cost or market, whichever lower)	\$40,000.00
Goods in Process:	
Raw Materials (Properly taken)	\$20,000.00
Direct Labor	4,000.00
Overhead—200 per cent of Direct Labor	8,000.00
	<u>32,000.00</u>
Finished Goods:	
Raw Materials and Parts	\$48,000.00
Direct Labor	10,000.00
Overhead—200 per cent of Direct Labor	20,000.00
	<u>78,000.00</u>
Total as above indicated	<u>\$150,000.00</u>

In preparing the tax return of the C Corporation on

the above basis the cost of sales and the gross profits would be computed as follows:

Sales	\$500,000.00
Deduct—Cost of Sales:	
Inventory Beginning	\$100,000.00
Purchases	300,000.00
Direct Labor	25,000.00
Factory Overhead	50,000.00
	<u>\$475,000.00</u>
Less—Inventory End of Year	150,000.00
Gross Profit	<u>\$175,000.00</u>

In view of the fact that the plant worked at only 60 per cent of normal, practically 40 per cent of the factory overhead would represent the cost of idle capacity. In valuing the inventories none of this idle capacity cost should be included and the normal overhead rate of 120 per cent (60 per cent of 200 per cent) to direct labor should be used. The cost of sales and gross profit recalculated on this proper basis would then appear as follows:

Sales	\$500,000.00
Deduct—Cost of Sales:	
Inventory Beginning	\$100,000.00
Purchases	300,000.00
Direct Labor	25,000.00
Factory Overhead	50,000.00
	<u>\$475,000.00</u>
*Less—Inventory End of Year	138,000.00
Gross Profit	<u>\$163,800.00</u>
*Recalculation as follows:	
Raw Material	\$40,000.00
Goods in Process:	
Raw Material	\$20,000.00
Direct Labor	4,000.00
Overhead (120 per cent of labor)	4,800.00
Finished Goods:	
Raw Material and Parts	\$48,000.00
Direct Labor	10,000.00
Overhead (120 per cent of labor)	12,000.00
Total Inventory	<u>\$138,800.00</u>

By way of explanation, it may be noted that by taking the inventories of goods in process and finished goods on the basis of including therein, a 200 per cent rate on direct labor for overhead, \$11,200.00 (difference between \$150,000.00 inventory and corrected inventory of \$138,800.00) of the \$20,000.00 idle-capacity cost, forming part of the entire \$50,000.00 factory overhead, was virtually shifted from expense (the \$50,000.00 overhead) and inventoried. Mathematically considered, the following explanation will clarify the situation:

If the plant worked at only 60 per cent of normal capacity, then 40 per cent of the entire expended overhead (\$50,000.00), equals \$20,000.00, the cost of idle capacity.

The direct labor in goods in process and finished goods inventories amounted to \$14,000.00 which was 14/25 of the entire labor expense for the year (\$25,000.00); therefore, 14/25 of the overhead due to idle capacity or 14/25 of \$20,000.00, which amounts to \$11,200.00, was inventoried.

Since \$11,200.00 of idle plant capacity was inventoried by using the \$150,000.00 inventory, only \$8,800.00 of the entire \$20,000.00 idle plant capacity was taken as an expense.

Had an error in inventorying, such as explained, occurred in 1918 and had the corporation been subject to the 80 per cent war profits tax, the additional tax would have amounted to \$8,960.00 on the \$11,200.00 error.

Where no cost system exists, the danger of including the cost of idle capacity in inventories is ever present, because the entire values must be largely fixed by guess. In valuing the raw-material content of finished goods, the manufacturer without a cost system must actually secure an analysis of the raw material contained in the finished goods and prepare a specification sheet literally showing the formula of the finished product. As a rule, however, no such efforts are made and the inventories

of goods in process and finished goods are taken by estimate. It is therefore quite apparent that the manufacturer without a cost system has, through his delinquency, denied himself the privilege of effectively using the "cost or market, whichever lower" plan of inventory valuation.

Unsalable Goods. Goods that are unsalable at normal prices or unusable in the normal way because they are damaged, imperfect, shop worn, out of style, or odd lots, including second-hand goods taken in exchange, should be valued at bona fide selling prices less cost of selling, whether the cost basis or the cost or market, whichever lower, basis is used. If the goods represent raw materials or partly finished goods held for use or consumption rather than for sale, they should be valued on some reasonable basis (if usable) but in no case at less than scrap value. Bona fide selling price means actual offerings of goods during a period ending not later than thirty days after inventory date. The burden of proving inventory values of unsalable or unusable goods is with the taxpayer.

Consistency of Inventory Valuation. The privilege of selecting either (a) cost or (b) cost or market, whichever is lower, as the basis for inventory valuation was given to taxpayers for the first time in connection with their 1920 inventories, and whatever basis the taxpayer selected was controlling for subsequent years. Changes from an elected basis can only be made after permission is secured from the Commissioner. Goods that are so intermingled in an inventory that they cannot be identified with specific purchase invoices will be deemed to be either—

1. The goods most recently purchased or produced, and the cost thereof will be the actual cost of the goods purchased or produced during the period in which the quantity of goods in the inventory has been acquired.
2. Where the taxpayer maintains book inventories in accordance with a sound accounting system in which the respec-

tive inventory accounts are charged with the actual cost of the goods purchased or produced and credited with the value of goods used, transferred, or sold, calculated upon the basis of the actual cost of the goods acquired during taxable year (including the inventory at the beginning of the year), the net value as shown by such inventory accounts will be deemed to be the cost of the goods on hand.

The balances shown by such book inventories should be verified by physical inventories from time to time and adjusted to conform therewith.

Inventories should be legibly recorded, properly computed and summarized, and should be preserved as part of the accounting records of taxpayers. These inventories are subject to investigation by the commissioner, who must be satisfied as to the pricing adopted by the taxpayer.

Various Methods of Inventorying not Allowed. The following methods of inventorying are not allowed:

1. Deducting from the inventory a reserve for price changes, or an estimated depreciation in the value thereof.
2. Taking work in process, or other parts of the inventory, at a nominal price or at less than its proper value.
3. Omitting portions of the stock on hand. (Note: All stock should be taken and recorded regardless of whether it has value or not.)
4. Using a constant price or nominal value for a so-called normal quantity of materials or goods in stock.
5. Including stock in transit, either shipped to or from the taxpayer, the title of which is not vested in the taxpayer.

Inventories at Cost. If the cost method of valuing inventories is adopted, cost means the following:

1. For merchandise on hand at the beginning of the taxable year, the inventory price of such goods.
2. For merchandise purchased during the taxable year, the invoice price less trade or other discounts, except strictly cash discounts, approximating a fair interest rate, which may be deducted or not at the option of the taxpayer, provided a consistent course is followed. To this net-invoice

price should be added transportation or other necessary charges incurred in acquiring the goods.

3. For goods manufactured during the taxable year.

- (a) The cost of raw materials and supplies used in connection with the product.
- (b) Expenditures for direct labor.
- (c) Indirect expenses incident to and necessary for the production of the particular article, including in such indirect expenses a reasonable proportion of management expenses (if applicable as manufacturing overhead), but not including any cost of selling or return on capital, whether by way of interest or profit.

4. In industries where the usual rules of inventory valuation are not applicable, costs may be approximated upon some reasonable basis and in conformity with the established practices of the particular industry involved.

Inventories at Market. Ordinarily, and for the normal goods in an inventory, "market" means the current bid price prevailing at the date of the inventory for the particular merchandise in the volume in which usually purchased by the taxpayer, and is applicable in the cases—

- (a) Of goods purchased and on hand.
- (b) Of basic elements of cost (materials, labor, and burden) in goods in process of manufacture and in finished goods on hand, exclusive, however, of goods on hand or in process of manufacture for delivery upon firm sales contracts (i. e., those not legally subject to cancellation by either party) at fixed prices entered into before the date of the inventory, which goods must be inventoried at cost.

Where no open market exists or where, due to stagnant market conditions, quotations are nominal, the taxpayer must use such evidences of a fair market value at the date or dates nearest the inventory as may be available. Specific purchases or sales made in reasonable volume and in good faith, or compensation paid for cancellation of contracts for purchase commitments, would be considered good evidence as to market value. Selling prices when lower than the current prices as first defined, may be used for inventory valuation and proper deductions may be made therefrom for selling expense. The tax-

payer must show sufficient actual sales for a period before and after the date of the inventory to substantiate his valuation. Prices which vary materially from the actual prices so ascertained will not be accepted as reflecting the market.

Inventories by Dealers in Securities. A dealer in securities may make his return of inventories in accordance with his methods of accounting, which may indicate that he values his unsold securities (his inventory) at either:

1. Cost.
2. Cost or market, whichever lower.
3. At market.

In making his return the dealer must describe the method he has employed and all securities must be inventoried by the same method, and that method must be followed in subsequent years unless a permission to change is given by the commissioner.

A dealer in securities is one (either an individual, partnership, or corporation) who regularly buys and sells securities from and to customers, who has an established place of business, and who engages in this business for the purpose of making gains or profits therefrom. If the dealing in securities is merely a branch of another activity, the securities held for resale only may be inventoried in accordance with the bases above indicated. In such cases, securities held for investment cannot be valued as inventory. Taxpayers who buy or sell securities or hold them as investments outside of their regular business, cannot be regarded as dealers in securities. A dealer in securities is not entitled to the benefits under the capital-gain section of the law in connection with the sale of securities.

Inventories at Selling Price. Some retailers employ the so-called "retail method" of pricing inventories and they may use this method in making their tax returns, provided the use of such method is designated on the return

and is used consistently. Under this method the inventory is priced at selling price and reduced to approximate cost by deducting the percentage which represents the difference between the retail selling value and the purchase price. The percentage is generally applied to departments or classes of goods, and should represent, as accurately as possible, the amounts added to the cost price to cover selling and other expenses of doing business and for the margin of profit. In computing the percentage, adjustments should be made for all mark-ups and mark-downs. It is also necessary that where departments are maintained the proper percentages be used for each department. No average percentage for the entire business should be used.

Valuation of Goods Taken in Exchange. The inventories of dealers in automobiles, pianos, and like articles usually contain a quantity of used or second-hand articles, the valuation of which demands special consideration. In such businesses it is customary to take in the used article as a part payment on the sale of the new article. The market value of the second-hand article is dependent upon its age and condition and often upon the expenditure of labor and material necessary to put it into marketable shape. The amount allowed for the used article on the sale of the new one does not necessarily represent the cost of the used article. It often represents not only the cost but also an additional amount which in reality is an allowance on the sale of the new article. Thus if a prospective customer has a used automobile worth only \$500.00, and is offered a new car, the published price of which is \$2,000.00, the dealer in order to close the deal may offer an allowance of \$750.00 on the used car, of which allowance \$250.00 is obviously an allowance on the sale of the new car. Such second-hand articles should not be valued for inventory purposes at more than their fair cost or market value plus the amount of an expenditure for putting them in a salable condition.

TEST YOURSELF ON ESSENTIAL POINTS

1. State in outline form the principal points to be considered in the verification of inventories, as discussed in this chapter.
2. Should inventories of a manufacturing concern be taken at cost value, at market value, or at some other value? Five reasons. (From C. P. A. Examination.)
3. Would you examine the inventory of a firm, in view of the fact that the auditor is not responsible for the inventory? If so, why? If not, why not? (From C. P. A. Examination.)
4. What is turnover, and what use should an auditor make of it in an audit of a merchandising business? (From C. P. A. Examination.)
5. When auditing the accounts of a wholesale grocery house, it is found that a fire has just destroyed the entire stock of merchandise. What course would you follow to approximate the inventory? (From C. P. A. Examination.)
6. "Inventory of merchandise should be carried at cost or market, whichever is lower." Do you assent to this proposition? Can you suggest circumstances in which you would approve a departure therefrom? Would you be influenced by events or conditions subsequent to the date of closing the accounts? (From American Institute Examination.)
7. How should a trading company acting also as agent for an individual trader, show on its balance sheet the unsold consigned goods of the principal? How should the principal show the goods on his own balance sheet? (From American Institute Examination.)
8. How would you verify the inventories of goods in process and finished goods where no cost system is in use?
9. A manufacturing concern maintains a stores ledger for all its raw material, has a system of recording on a tag attached to the bins in which the material is kept, items put into bins when received, and items withdrawn therefrom, by requisitions on the storekeeper. Would an auditor be justified in accepting (as to quantities) a book inventory of materials, if he compared the balances with the bin tickets and found them in agreement with balances in the stores ledger accounts?
10. How would the auditor determine whether the inventory contained no obsolete or scrapped materials?

Chapter VI

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

PREPAID EXPENSES

Distinction between prepaid expenses and deferred charges—Their place on balance sheet—Prepaid insurance, interest, taxes—Investments on balance sheet—Valuation of investments—Sinking funds—How sinking-fund cash should be invested.

In the past few years there has been some debate among accountants as to the place on the balance sheet which should be awarded to so-called "prepaid expenses." Should they immediately follow the current assets, or should they be included with "deferred charges," generally shown as the last group of assets on the balance sheet? Intelligently to settle this controversy, it is essential to determine what distinction there is between prepaid expenses and deferred charges, as now interpreted.

Nature of Prepaid Expenses. Prepaid expenses are very closely akin to inventories. They represent outlays which are to benefit future operations shortly, and their value to the business is accurately measurable. This is not always true of deferred charges which are more indefinite in character and which, at any rate, are drawn out further into the future. Generally, prepaid expenses have a present cash value which is usually recoverable or salable. It is for the last reason that they should immediately follow current assets in the balance sheet. This stand is strengthened when we make an inspection of prepaid expenses in contrast to deferred charges.

Prepaid expenses consist of such items as:

- Prepaid insurance.
- Prepaid interest.
- Rent paid in advance.
- Prepaid taxes.
- Inventories of office and advertising supplies.

Prepaid insurance is recoverable in cash upon the surrender of the insurance policies (at least on a short rate

basis). The discount on a loan (prepaid expense) has a cash value if the loan is liquidated before maturity. Rent paid in advance and prepaid taxes are quite generally recoverable through adjustment when a business is sold. Supply inventories represent actual values which currently serve business needs, and in many concerns they are handled through inventory control records. These supplies should not, of course, be included with the inventories which become the objects of sale because they are not salable units. At the same time, however, they should not be included with the deferred charges.

Nature of Deferred Charges. Deferred charges are recoverable only through operational results, and they rarely have a cashable value. They are also deferred over a much longer period of time than prepaid expenses. Then again, the benefits from some deferred charges may not necessarily materialize. For instance, a special advertising campaign that is expected to produce future sales may prove a fiasco. Discount on the sale of bonds, although as truly a future interest charge as the portions written down from prepaid interest, cannot be recovered from the underwriters, even though the bonds are paid before maturity. Bond discount merely establishes the effective interest rate at which a business can borrow more or less permanent funds and can be recovered only through the continued operations of the business. Other deferred charges are organization expense, discount on the sale of capital stock, deferred selling expenses, prepaid dues, extraordinary repairs, etc.

Prepaid Insurance. The auditor should recommend that insurance premiums be charged to a Prepaid Insurance Account and that one-twelfth thereof (if year policies) be charged to Insurance Expense each month and the Prepaid Insurance Account credited. An insurance register may in some instances be recommended, in which the following details will appear:

Policy number.
Name of company.
Date of policy.
Date of expiration.
Nature of insurance.
Amount of insurance.
Amount of premium.

Twelve columns covering the months of a calendar year.

The important feature of an insurance register in the form above proposed is the section divided into the twelve columns for the calendar months. In these columns will be placed the monthly fraction of the prepaid insurance premium so that the sum total of each column will at once represent the amount chargeable each month to Insurance Expense and will, of course, at the same time be the amount by which the inventory of Prepaid Insurance will be relieved or credited.

If an insurance register as outlined be kept, the auditor should have no difficulty whatever in verifying the Unexpired or Prepaid Insurance Account. If no register is in force, he will have to determine the prepaid balance by listing all the policies and their unexpired portions. Wherever practicable, the auditor should recommend that all insurance be taken out on one specific date and preferably on the first day of each fiscal year. In the latter case, the matter of distributing the expense to the months would be simple and no division of the individual premiums would be necessary. Again, all insurance would expire with the year so that the Prepaid Insurance Account would be entirely eliminated at the end of each year. Any additional insurance which might, for one reason or another, have to be written during the year could easily be rewritten at the beginning of the next year to conform with the general plan. Where the insurance is extraordinarily heavy, the plan as outlined might not be feasible because of the large premiums all payable at one time. Then again, if universally practiced, the entire business of insurance companies would

fall into one month and it would probably be physically impossible to issue the policies. In individual cases, however, where the amount of insurance carried is moderate, the plan should work admirably and save the bookkeeper as well as the auditor considerable time in attaining their respective objects. It might be suggested as always feasible and where the annual plan could not be followed, to have equal portions of the insurance expire quarterly or monthly, thereby giving regularity to the Insurance Account and simplifying the accounting procedure.

Coincident with the examination of the Prepaid Insurance Account, the auditor should carefully inspect the policies; he should see that they are made out in the client's name; he should examine the co-insurance clause or any other restrictions; and he should be always on the watch for the contingent-liability clause on the policies of mutual or assessment companies. As a rule, there is a contingent liability of several times the premium paid on these policies. He should also examine generally into the adequacy of the amount of insurance carried and into the policies written with a co-insurance clause.

Prepaid Interest. Thirty-day discounts, unless coming near the end of the last month of a fiscal year, and unless of unusually large amounts, need not be included in the Prepaid Interest Account. But if the auditor should find a \$100,000.00 note discounted for thirty days at 4 per cent on December 20 (assuming the fiscal year ended with the calendar year), he should certainly see to it that only one-third of the discount be charged during the year and the remainder set up as Prepaid Interest to be written off during the following January. We might recommend that all thirty-day discounts not coming on the first five days of a month, if of any appreciable size, should be charged to Prepaid Interest Account rather than to Interest Expense, so that each month may be burdened with its proper share of expense.

Any discounts for periods of over thirty days (unless

they be too small for consideration) should without any question be charged to Prepaid Interest Account and the expense properly allocated between months in proportion to the number of days covered by the term of the loan during these months. Thus a ninety-day loan of \$1,000.00, discounted January 15 at 6 per cent, should provide first for a charge of \$15.00 to Prepaid Interest Account, and roughly Interest Expense should be charged and Prepaid Interest credited in the following manner:

1/6 of \$15.00, or \$2.50 in January (1/2 month).
 1/3 of \$15.00, or \$5.00 in February (1 month).
 1/3 of \$15.00, or \$5.00 in March (1 month).
 1/6 of \$15.00, at \$2.50 in April (1/2 month).

\$15.00 Total discount distributed.

On large loans the discount should be worked down to a day basis and each month charged on the basis of actual days in the month rather than on a thirty-day basis.

Where notes receivable are discounted, it is hardly ever desirable to set up the amount of discount as a deferred charge, because in the first place the notes may become liabilities, and secondly because they generally bear interest equivalent to the discounts or in excess thereof. At the end of the year, however, if the notes receivable discounted are numerous and the discount heavy, provision should be made for the prepaid portion and offset against any interest accrued on these notes which will be recoverable when the notes are paid by the makers.

Our concern here is chiefly with the regular notes of the client discounted as loans. These discounts the auditor should always (if they are for a period in excess of thirty days or if in large amounts) set up in the Prepaid Interest Account so that the period under audit and the period to follow may each bear its proportion of interest expense. The auditor must always be cautioned to make adjustments of this kind for both the end and the beginning of the period he is reporting on. If he sets up an

account for Prepaid Interest at the end without adjusting the accounts at the beginning, the interest expense for the period will be misstated. The adjustment at the beginning of the period will affect the Surplus and current profit and loss accounts, whereas the adjustment at the end will affect merely the current year's Profit and Loss Account and will create a deferred charge temporarily viewed as an asset account for balance-sheet purposes. This whole subject may be illustrated by the following problem: Company A's books show charges during the year of \$3,000.00 for loans discounted. At the end of the year the auditor finds that \$300.00 of this amount represents prepaid interest on loans which will not mature until the subsequent year. We can readily see that the following entry must be made:

Prepaid Interest	\$300.00
Discount	\$300.00

To set up interest prepaid chargeable to next year's expense since some notes do not mature until next year.

This entry would reduce the Discount Account to \$2,700.00, but is that all that is chargeable to the current year? Let us suppose that the auditor's investigation shows that no provision was made for prepaid interest at the beginning of the year and that all the discounts were included as expense during the year prior. If it were found further that the prepaid interest at the beginning of the year (all charged to prior year's operations) amounted to \$800.00, the following entry would then have to be made:

Discounts	\$800.00
Surplus	\$800.00

To charge expenses of current year with portion of discounts on loans discounted in prior years, all the discount having been charged to prior year's expense.

It is readily seen that if the auditor had been content

to adjust the Discount Account for the end of the current year only, the discounts charged would have amounted to \$2,700.00, whereas the actual discounts applicable to the current year amounted to \$3,500.00. Had no adjustment been made for the beginning of the year, both the current year's accounts would have been wrong as well as the Surplus Account or the prior year's expenses. Therefore in dealing with all prepaid or accrued items when these are not considered in the books of account, adjustments must be made at both the end and the beginning of the period audited so that current operations may be properly stated and the Surplus Account at the beginning corrected.

Prepaid Taxes. As a rule, taxes are assessed according to the calendar year and are payable some time between January and April of the following year. That being true, we rarely encounter a condition where taxes are paid in advance. Special taxes, however, similar to licenses, are generally paid in advance. Whenever such a condition is encountered the auditor must see that the expenditure has been properly proportioned and that the amount deferred is correct. He should naturally inspect the tax-collector's receipt and verify therefrom the period covered.

It is our impression that in a number of states property taxes are payable in advance (or at least partly so) when the fiscal year of a company and calendar year coincide. In such instances the auditor must apply the same process of verification for the deferred portion recommended above.

Prepaid Rents. This item of prepaid expense can be dismissed with a few words. It is a legitimately deferred expense and must be written off during the period or periods it covers. The auditor must be sure that the entire rent charge for the period audited is properly accounted for, and that, therefore, the account at the begin-

ning of the period was also adjusted, if such an account existed at that time.

INVESTMENTS IN SECURITIES

Place on Balance Sheet. Investments should always appear under a separate caption in the auditor's balance sheet. If they represent temporary investments of a company's surplus that can be converted readily into cash, the caption should follow "Current Assets," or they might in fact be included as part of Current Assets. If, however, they represent partial control or more in subsidiary, affiliated, or other operating companies, their permanency would give them a place next to or immediately preceding "Fixed Assets." At any rate, the auditor should comment fully in the text of his report on the items composing "Investments" and they should appear as a separate caption in the balance sheet irrespective of their nature.

Procedure in Verification. All securities in the Investments Account that are in the client's office should be examined by the auditor and a complete list of them prepared. The securities out as collateral should be verified by correspondence, and any in transit to the client should be checked upon their receipt, and the transmitter circularized. If the transmitting agency be a branch office of the client (which office is also audited), the records of the branch should show the transmittal as prior to the closing of the branch accounts. If some of the securities were sold subsequent to closing date, covered by the auditor's certificate, the cash receipts therefor should be verified. All securities purchased subsequent to the audited period should be checked against the disbursement record.

The list of investments prepared by the auditor should yield the following information:

- Description of the securities.
- Date purchased.

Par value.

Number of shares or bonds and their denomination.

Rate at which purchased and total cost.

Interest or dividends received during the year.

Accrued interest on bonds (if any).

Market values.

Excess of market values over book values or the opposite.

Total issues of the companies.

Net worth of the companies where no market reports are available.

If out as collateral or as security, name of the holder and purpose of the collateral.

The list thus prepared, consisting of securities on hand, in transit, or out as collateral, etc., should be compared with the general ledger controlling accounts, and the interest and dividends received and interest accrued (if the accounts are kept on the accrual basis) must be compared with the corresponding general ledger income accounts.

Valuation of Investments. Reserves should be created in all instances where the market values are appreciably less than book values, at least for balance-sheet purposes. The Investment Account, however, should remain at cost and the entry creating the reserve at the end of the audited period may be reversed at the beginning of the next period as an adjustment to Surplus. Reserves should be set up whenever the company issues a balance sheet for public or credit purposes, to provide for shrinkage in market values below cost. But why not offset shrinkage of some securities by market excess over cost of others? Because it is poor business policy to anticipate profits and excellent and conservative to provide for any possible losses; tendencies downward are, to begin with, indications of danger and possible loss. It is always wise to provide against loss, for the gains will take care of themselves if from the nature of things gains must result.

If bonds are registered, the registration agent should be circularized. All bonds must be examined to see that

the coupons attached are intact and that they represent the next interest-payment date. Stocks should be made out in favor of the company or, where the law prevents, in the name of the authorized trustee of the company.

The value of an investment in subsidiary or controlled corporations can generally be determined by a partial investigation of the books of such corporations. If this cannot be done, then the auditor must limit his certificate by a statement that such investments are at cost or otherwise, but that their real value could not be determined since access was not had to the books of the affiliated corporations. If an auditor advises his client of a qualification of this kind to the certificate, provisions are generally made for a very thorough examination of the affiliated corporation's accounts.

Stocks purchased from brokers should be verified through the stockbrokers' advices. If the company carries securities on margin, a certificate of the company's account should be obtained from the broker and all open trades verified. The author has found a number of instances where stocks purchased on margin were included among the investments and where the account with the stockbroker represented a credit balance far in excess of the book value of the stocks, the credit balance as a rule representing not only a liability for stocks long but profits on trades besides. Such practices are to be condemned. Profits on closed trades should be transferred promptly to the Profit and Loss Account.

Mortgages. Mortgages held as investments should be thoroughly scrutinized, and they should be supported by the insurance policies. The auditor should also see that they have been properly recorded, and that all taxes have been paid on the mortgaged property, and that there are no other liens infringing on the value of the security. The auditor should further satisfy himself that interest payments were made promptly and in accord-

ance with the terms of the mortgage, and that the margin of security is ample. A mortgage on the property of a defunct corporation might be practically valueless or at least full recovery be doubtful. Any mortgages of this kind should be fully commented on in the auditor's report.

SINKING FUNDS

Sinking funds are as a rule created for specific purposes in connection with the retirement or gradual extinction of certain forms of indebtedness. Thus sinking funds may be provided for the retirement of bond or preferred-stock issues or for the payment of mortgages. The auditor should always refer to the deed of trust or contract providing for the sinking fund, in order to assure himself that all stipulations of these indentures have been complied with. The name of the trustee should be secured, and from him a certificate should be requested as to the amount on deposit and as to any interest credited thereon which may or may not be entered in the accounts of the auditor's client. It would also be advisable to have the trustee's certificate cover the question of sufficiency of deposit as per terms of trust agreement or mortgage. Where the deposits are not with the trustee, the auditor must assume full responsibility in testing their sufficiency and should request a certificate from the depository as to amount.

The sinking fund should always represent a separate deposit account, and the depository's certificate should so indicate. The investigation should cover each and every payment into the sinking fund, with the dates indicated. These payments should all be regular and on specific dates as provided in the trust indenture.

Though the sinking fund in total on a certain date may meet the total requirements to that date, there is no positive assurance through that fact that the terms provided by the trust indenture have been met. The

fund may have been built up sporadically or at a time just prior to the audit, in which case the terms of the contract have been violated and the interest-accumulation principle of sinking funds violated. In such cases the trustee would be equally culpable with the depositor.

Proper Investment of Sinking Funds. The auditor should be able to give some constructive advice as to the proper investment of sinking funds. If the fund exists to retire the company's own bonds and these bonds bore 5 per cent interest, it would certainly be good policy for the company to invest by purchase in its own bonds and then to cancel them. The company would earn the difference between the 5 per cent it would save and the possible $3\frac{1}{2}$ to 4 per cent that it would receive on other sound investments. A company should never be satisfied to permit its sinking fund to take the form of a time deposit drawing from 2 to 3 per cent interest, and a trustee handling a fund in that manner is subject to severe criticism. There are thousands of sound securities yielding anywhere from $3\frac{1}{2}$ to 5 per cent.

If the sinking fund is invested in securities, the securities themselves should be examined by the auditor and listed and their market or cash value determined. If the trustee is far removed from the client's place of business, he should provide a certificate to the auditor covering the investments, their market values, date and price of purchase, accrued interest, etc.

Sinking Funds of Municipalities. Sinking funds of municipalities require very special attention. The general laxity of control over the finances of a city imposes a severe test on an auditor in determining the adequacy of the provisions. The sinking-fund provisions for cities should be based upon actuarial science so that the amounts actually in the funds could be checked against the tables. The auditor can give advice of very constructive nature along these lines. In certain states the laws

fix the annual amounts to be paid into municipal sinking funds. It is the auditor's duty to see that the provisions of the laws are fully met.

TEST YOURSELF ON ESSENTIAL POINTS

1. Explain the difference between prepaid expenses and deferred charges and show how each should appear on the balance sheet.
2. What is meant by a deferred charge to operation? Name three examples, and state how each is proved correct in an audit. (From American Institute Examination.)
3. As an auditor, how would you undertake to satisfy yourself in regard to the following items carried as investments:
 - (a) First Mortgage 6% bonds of the Wilson Products Company, par value \$100,000.00, cost value \$90,000.00 market value \$94,000.00?
 - (b) Common stock of the National Radio Co., 5,000 shares, par value \$100 per share, cost value, \$110, market value \$96?

How would these investments appear on the balance sheet and what values should be used for balance-sheet purposes?

4. In preparing a balance sheet of a corporation how would you classify or deal with securities—
 - (a) Representing the entire ownership of a plant?
 - (b) Representing an interest in a competing company?
 - (c) Representing the investment of a sinking fund?
 - (d) Representing the investment of a temporary surplus of cash?
 - (e) Stocks and bonds by the company itself? (From American Institute Examination.)
5. In what manner should the auditor verify the existence of sinking fund assets?

Chapter VII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

FIXED ASSETS

Productive and non-productive land—Methods of verification—
Decline in value of land—Land companies—Cost of developed real
estate—Buildings used productively—Additions and betterments—
Method of analyzing building account—Buildings on leased land—
Property additions and business growth.

Fixed Assets. Schedules should be prepared of the various fixed assets included under the following groups:

Land.
Buildings.
Machinery and Equipment.
Office Furniture and Fixtures.

Land. Where first audits are being conducted, the deeds to lands should be carefully examined, the abstract of title inspected, and the necessary court records investigated so that assurance may be had that titles are clear and that there are no liens recorded against the property. The original cost price plus any legal or recording fees, surveying costs, etc., should represent the opening book value placed on the property, and should furnish the starting point to the auditor for a further analysis and inspection of the Land Account.

The lands of a company should be classified under the headings of productive and nonproductive; that is, lands held for sale or for other purposes, and lands actually utilized for producing income. Charges to these properties should cover only improvements or expenditures which will produce an increase in revenue. Ordinary taxes are carrying charges covering government protection, and these should not be charged as an asset. It might be permissible to charge the tax on land to the Property Account during the period of building construction if construction work is started immediately after the acquisition of the land, because in such instances it

is very evident that the land purchase was not for the purpose of acquiring land but for the purpose of erecting buildings to be used productively. In all other instances taxes should be regarded as an insurance by the state for protection and service. Special assessments, however, covering street improvements adjacent to land, sewer construction, etc., are for actual improvements and necessarily enhance land values. All other charges to the Land Account should represent improvements or additions, and the auditor should be very careful in his scrutiny of these charges so as to be sure that values have been actually increased. Charges to the account because of re-appraisal of land values cannot be approved since they anticipate a profit which cannot be realized or determined until the land is sold. They may be tolerated if the company offsets the increase in the Land Account by a reserve for an equal amount.

Many public accountants assume offhand that land does not depreciate. Land values may depreciate as well as appreciate. In fact, a location may lose its value to a manufacturer so as to force him to dispose of his land at quite a sacrifice. Again buildings used for manufacturing purposes must be sold with the site. The buildings may be entirely adequate for manufacturing purposes and would be suitable if properly located. The loss engendered by a condition of this kind certainly represents a depreciation of land—at least for manufacturing purposes—and not of buildings. Irrespective of suitability of site there may be depreciation of land values due to numerous other causes, even though a plant may advantageously continue its operations on the land. This point is emphasized to counteract the tendency to write up land values because of presumed increases in sectional values. Such increases may be very evident to the man who wants to buy or to the lot seller, but they may not be so well defined to a man who wants to sell with buildings or who wishes to remove to a more

advantageous manufacturing site. The location of a piece of land for a special purpose or facility is after all the gist of the whole matter.

Land Companies. The land account of a land company must be very carefully analyzed. In such a concern the initial administrative and selling expenses are necessarily large. None of these expenses is chargeable to the Land Account. Advertising and selling expenses may be set up as deferred charges until the sales begin and some of the administrative expense may be deferred, but under no condition are these items chargeable to the Property Account itself. Only actual improvements, such as sidewalk construction and street paving, can be capitalized.

The original purchase of the land should be charged to an Unimproved Real Estate Account. As sections are laid out into lots, the Unimproved Real Estate Account should be credited at cost and a Lot Ledger Account debited. The lot ledger itself will contain the detailed descriptions and values of the individual lots. If buildings are put up, the Lot Ledger Account is charged and the improvement entered under the individual lot in the subsidiary lot ledger. When the building is completed, the entire improved lot is taken out of the lot ledger and transferred to an improved real estate ledger.

There may be, therefore, three distinct ledgers which the auditor must examine, viz., the unimproved real estate, the lot, and the improved real estate ledgers. It is important to gain assurance that all the amounts carried in these ledgers are at cost and that they represent actual improvements. On the basis of these ledgers depends the construction of the various Cost of Sales Accounts. When lots or improved parcels are sold, the buyer should be charged and Sales credited; the lots sold will be credited and cost of sales charged. All selling and administrative expenses should then be charged against the gross profits represented by the difference between the Sales and the Cost of Sales Accounts.

The unsold lots at the end of the period should be compared with the company's maps and all customers' balances for lots sold should be verified by correspondence. Unpaid balances on tracts purchased should be verified in the same manner and the contracts for both the purchase of tracts and the sale of lots thoroughly examined. Very often payments on purchase price are proportioned to the receipts from sales.

Buildings. In examining the Building Account, the auditor should at once make a clear distinction, in schedule form, of buildings used productively (or in the business) and of buildings used for other purposes or not in use at all. This is valuable not only for purposes of analysis but also to indicate the amount of capital tied up in nonproductive assets. It should be remembered that the upkeep, depreciation, and carrying charges of idle plant might be considered in price making and is thereby an unjust burden on production or trading. Investment in plant should bear a proportional and logical relation to production or volume of business so that "unearned burden" may be at a minimum and so that all plant be kept as close to peak production as possible.

Additions and Betterments. The controlling account for buildings should agree with the property ledger (if one be kept) and the balances at the end and the beginning of the period should tally with the subsidiary ledger balances. All additions made during the period must be examined and proper authorizations secured for the expenditures. If construction was carried on by contractors, the contracts should be examined. If the construction work was performed by the client's own labor, the pay-roll records must be inspected and the material requisitions called for. Additions should be entered on the books at cost, and no profit should be taken into the asset account for construction work done by the client.

If a large portion of the labor force was employed in construction work and withdrawn from regular production departments, a portion of factory overhead may be included in the construction charge, but only when the regular productive factors of the company or client were utilized by the construction labor. Where this is not the case and only odd hours of labor are given over to construction work, it is improbable that the factory overhead would be appreciably affected by such sporadic efforts, and it would be deemed a violation of conservatism to include a portion of factory overhead as a construction cost.

Care must at all times be exercised by the auditor with reference to charges to Building Accounts. These charges must represent real additions or changes which will increase earning capacity. They must not be replacements or repairs. Any construction which merely re-establishes the original plant or portions thereof is chargeable to Depreciation Reserve Account and not to Property Account.

Analyzing Building Account. In analyzing the Building Account the auditor should prepare schedules giving the following details:

1. Original cost or purchase price (in the case of a first audit), or balance at beginning of period (substantiated by proper invoices, deeds, cost records, or purchase contracts).
2. Additions (as evidenced by properly authorized vouchers, contracts, or cost records).
3. Total values at cost.
4. Amounts of depreciation provided and rates of depreciation.
5. Values on which depreciation is based.
6. Depreciated values.

It is ordinarily proper to figure depreciation during a year on balances at the beginning of the year. Additions made during a year to buildings are not as a rule depreciated. Though this rule is general, it is not always applicable. If an entirely new structure were completed

within the year and became an operating factor, it would certainly be very poor cost accounting not to figure depreciation into operations. But, on the other hand, if only minor additions were made to buildings, it would be very troublesome to adjust depreciation schedules and rates every time such additions were made. The treatment, therefore, depends entirely upon the magnitude and nature of the property additions.

Depreciation reserves must be studied by the auditor carefully, not only as to sufficiency but as to mode of construction. Depreciation does not consist of a portion of profits set aside at the end of the year. Depreciation is a current, everyday operating expense and as such must be currently included in costs. This is just as true of building depreciation as it is of the depreciation of the more direct operating factors. There are fairly well established depreciation rates for buildings of different types of construction. Various state commissions have given careful study to these matters and construction engineers have delved deeply into the subject. The rates should of course be based on the estimated life of the building, with due regard for the possibility of obsolescence.

Buildings on Leased Premises. Where buildings have been erected on leased premises, it will be necessary to write off the entire value of the buildings during the term of the lease unless some provision has been made with the lessor as to partial compensation. The auditor should satisfy himself that the amounts written off are ample and that provision for the retirement of the properties is made after approved standards; in fact, the annuity method is the best and, if not already in use, might well be recommended by the auditor.

Adequacy of Insurance. In connection with the analysis of the Building Account, the auditor should call for all insurance policies, in order, first, to determine the

adequacy of the insurance; second, to assure himself that the policies are in the company's name; and third, to serve as an additional proof that the properties are not hypothecated.

Property Additions and Business Growth. From a constructive standpoint it may be well for the auditor to investigate the effect of property on general business growth. If, for example, in a manufacturing business extensive additions have been made to plant, machinery, and equipment, the auditor should determine whether these additions have led to a proportionate increase in production. It may not be possible to test additions or improvements through an application in detail of the law of diminishing returns, but surely a general investigation may show whether the increased productivity was in some way commensurate with increased capital outlay. In fact, a survey of this kind which should consume very little time may lead to a definite knowledge of maximum productivity and returns as related to the different types of capital investment.

TEST YOURSELF ON ESSENTIAL POINTS

1. As to the asset of land:
 - (a) What rule of valuation applies for Balance Sheet purposes?
 - (b) What rule of valuation applies when used for a factory site?
 - (c) What rule of valuation applies when purchased as an investment? (From C. P. A. Examination.)
2. What would you consider satisfactory evidence of the correctness and propriety of expenditures of land purchased? (From American Institute Examination.)
3. A firm carries on its books a number of parcels of land. By what means could the auditor satisfy himself as to the ownership and value of the several parcels? (From C. P. A. Examination.)
4. State how you would determine the valuation of land subdivided into tracts or lots for sale.
5. What method should an auditor employ in determining the value of buildings? (From C. P. A. Examination.)

6. A manufacturing company owns buildings in another city, that have not been used for business purposes for years. Indicate how you would show:

- (a) The property on the balance sheet.
- (b) The expenses and taxes thereon in the profit and loss statement. (From C. P. A. Examination.)

Chapter VIII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

FIXED ASSETS (Cont'd)

Procedure in verification of machinery and equipment—Gauging adequacy of reserve for depreciation—Varying rates of depreciation for different kinds of machines—Valuation of small tools—Valuation of drawings and patterns—Verification of office furniture and fixtures—Delivery equipment—Appreciation of fixed property.

Machinery and Equipment. Considerably more care must be exercised in analyzing the Machinery and Equipment Accounts than the Building Account. The buildings as a rule are few in number, their construction is easily determined, and their life of utility readily estimated. Not so with machinery. A machine may last twenty years in one shop, whereas the same type of machine may in another be ready for the scrap pile in five years.

The use to which machinery is put, the time it is used, the amounts expended for repairs and replacement of parts—all these elements must receive consideration by a careful auditor. In fact, a knowledge of shop conditions is almost essential before sound conclusions can be drawn with reference to the Machinery Account.

In many companies detailed records are kept, showing the cost, date of purchase, factory number, type, maker, and description of every machine. These records, as a rule, should be tied up with the general books, because they are of very great value to the auditor as a check against the amounts set up in the controlling account and for purposes of verifying depreciation. In stating depreciation it should be remembered that every machine should be treated as a unit. A flat rate on all machinery is entirely inadequate and unjust. High-speed machines may last five years, whereas a low-g geared device may remain in effective service for twenty years or more.

Appraisal companies, although not always entirely re-

liable in their estimates of values, have contributed considerable by their detailed records or lists of machinery furnished with each appraisal report, and a company may conveniently use the appraisal sheets as subsidiary machinery ledgers, making, of course, whatever adjustments are necessary to bring the values down to real depreciated values. Columns should be provided on these appraisal sheets for depreciation, repairs, and replacement of parts, which will give the necessary data for the amounts to be credited to Depreciation Reserve Account, the information as to annual repair cost, and the sum to be charged against Depreciation Reserve, respectively.

The auditor must be on guard constantly against the commission of two common errors, viz., the error of charging repairs to Capital Account, and the error of charging replacements to either Capital Account or Expense. Repairs cannot cancel depreciation any more than medical attention during life can give life everlasting. Repairs must always be charged as an operating cost, and replacements and renewals must be charged against the reserve for depreciation since they tend to re-establish the equipment to its original status, thereby restoring the capital intact.

Gauging Adequacy of Reserve. The adequacy of a reserve for depreciation for machinery must therefore be gauged by the sum of the accrued depreciation on all machines taken individually. It is needless to say that an examination of the Machinery Account along these lines is in many instances an enormous task, but it is the only scientific method, especially in a first audit. The work, of course, is reduced where individual machine records are kept. These records should be inspected thoroughly and the depreciated totals should agree with the general ledger Machinery Account after deduction therefrom of the reserve for depreciation.

Varying Rates of Depreciation. The importance of pro-

viding proper and varying rates of depreciation for the different properties included in the Machinery and Equipment Accounts cannot be overemphasized. Nor can the use of a subsidiary machinery and equipment ledger be too strongly recommended. No proper data as to depreciation can be maintained without such a ledger. No business man would be guilty of throwing all his accounts receivable into one account and without name or place. The values tied up in machinery and equipment are as a rule far in excess of the accounts receivable. Business consists entirely of conversion and exchange of values. Therefore, why not put values on an equal basis for accounting purposes? Cash invested in machinery should have the same attention as cash in bank. Both are susceptible to changes and shrinkages and both are convertible, in fact are daily being converted, into values of different character. The depreciation of the machine becomes part of the value of the finished commodity, which in turn becomes an account receivable convertible into cash. Depreciation thus actually is converted into cash. It should therefore receive as much attention as the Cash Account. It is as important currently, since reflected in every sale and cash receipt, and it is of even greater importance ultimately, since through its inclusion in the selling price, provision has been made for the retention of capital investment and for the replenishment of capital when the machinery is worn out.

Capital invested in fixed assets is a deferred charge to future operations. It is like prepaid insurance. The insurance premium must be written off into operations currently during the life of the policy. The value of the investment must be written off during the life of the various pieces of property. Both are recoverable through sales, since both are included in the cost of production, the result being that the insurance premium and the exhaustion of the capital (depreciation) are both repaid

in cash. In taking this view of capital invested in fixed assets, one can readily appreciate the necessity and logic of providing fully for the exhaustion, through use, of plant and equipment. Unless provision be made currently for the disappearance of fixed assets into production and consequently into selling price, a manufacturer will soon find himself in the serious dilemma of possessing no capital at all. When confronted with this situation he will no longer be able to restore his capital through sales, because the enormous prices he would have to charge would put him out of business entirely. The auditor cannot, therefore, insist too strongly that adequate provisions be made for depreciation and that depreciation be considered currently in order that it may at all times be reflected in the sales price and be recoverable through it.

In examining the Machinery and Equipment Accounts, the auditor must assure himself that no obsolete machines are included. The detail machinery ledger should show readily the machines in use, those not in use, and those ready to be scrapped.

Small Tools. Small tools for either hand or machine use, dies, jigs, and templates depreciate very rapidly indeed, and the provision must therefore be very liberal. In fact, it is advisable to set up a normal inventory for this equipment which will closely represent the total investment in these devices, currently charging all replacements and additions direct to expense accounts. This practice would not be feasible, however, at times when extraordinary outlays for tools, etc., would have to be made. In most concerns, however, the investment in equipment of this character would be fairly constant, so that all replacements might fairly be charged to Expense. Quite a number of printers are employing this method in connection with their Type Investment Accounts. The inventory of tools must, of course, be fully verified, irrespective of how it is carried in the books.

Special tools made in connection with job work are generally charged to customers, although they may be held by the manufacturer. The auditor should be on guard against the inclusion of these in the manufacturer's inventory. These devices sometimes run up into large sums of money.

Drawings and Patterns. Drawings and patterns should also be depreciated within a short period. Designs change constantly and drawings and patterns are worthless the moment the design changes. It is of the utmost importance to inspect accounts of this nature thoroughly. There is always a tendency on the part of executives to overestimate the values invested in assets of this character.

Office Furniture and Fixtures. The residual value of assets of this nature is an uncertain item and the amounts that may be recovered, as a rule, are small. However, as in the case of all assets in a going concern, they should be carried at their operating value. Many companies carry their furniture and fixtures at the nominal value of one dollar. This may be appropriate where the investment is light or where the furniture and fixtures are of a special nature. There is, however, little justification in carrying these assets at less than scrap value where the investment is quite heavy. The depreciation in the latter case should be liberal and the account reduced to scrap value in five years or less. The frequent changes in this kind of equipment and the damage caused by shifting entail heavy shrinkage in value. The construction of the furniture should guide the auditor in passing on the depreciation factor. Steel furniture, if the styles and purposes for which the devices are used do not change, might easily last twenty years, whereas wooden furniture, while it may last, would probably be so marred and damaged after several years' use that its serviceability would be questionable. After all, the whole subject resolves itself into a matter of judgment, with the

caution to the auditor that the provision for depreciation be liberal.

Delivery Equipment. Horses in heavy service give out rapidly and should be depreciated at about 25 per cent of cost annually.

Wagons have so generally gone out of use for delivery purposes that one hesitates to recommend a rate of depreciation. The depreciation normally would be between 10 per cent and 15 per cent a year, but the use of automobiles for delivery purposes is becoming so general that wagons are almost obsolete, at least for the larger percentage of industries and businesses. The depreciation of automobiles depends on their use. For light delivery, a rate of from 15 to 20 per cent should be ample; heavy continued service might call for from 20 to 30 per cent. These rates ought to be ample because so many parts of an automobile can be replaced. There should be little question, therefore, about the approximate life of an automobile, and it would appear that for delivery purposes one might reasonably expect an effective use for from four to five years. The auditor should in all cases be guided by the experiences of the companies he has audited. Automobiles are in such common use that the information as to their life of effectiveness is quite general and fairly well established.

It would be well for the auditor to equip himself with the depreciation tables prepared by the various public service commissions of the states, and by the large firms of industrial engineers and appraisers. Rates must vary according to uses of machinery and equipment. The tables first referred to cover quite specifically various types of buildings, machinery, and equipment, under both heavy and light service, and will be found of interest and value.

Appreciation of Fixed Property. Our discussion has been confined almost entirely to the value of fixed assets

based upon cost. Frequently the auditor must pass on property values stated on the books in excess of cost. The Federal income tax laws provide that cost or market, whichever is higher, at March 1, 1913, may be used as a base for computing profit from the sale of fixed property acquired before that date.

The cost of building materials, equipment, and labor increased steadily from 1914 to date. Although there has been some decline in recent years, costs are still greatly in excess of those prevailing before 1914. A permanently higher level of building costs has, no doubt, been established, owing to the marked changes in the labor situation. Consequently, quite a number of business concerns have had appraisals made and have adjusted their fixed property accounts for tax purposes to obtain the maximum deduction for depreciation and properly to record profits from properties sold. Then, again, other concerns have appreciated their plant assets so that their costs will be consistent with competing or similar concerns who acquired their plant assets at advanced costs. In view of these conditions the auditor may find that the property values have been appreciated to the real values, in case such property was acquired at a low cost far below the present sound value. He must, therefore, pass upon such values, but, before doing so, he should determine whether the assets have been appreciated to a point where a reasonable rate of income cannot be earned on the amount regarded as the augmented capital.

An appraisal of property that is reasonable and authoritative, whether made by a public appraiser or by the officials of the concern itself, must be recognized by the auditor. However, in all cases, the auditor should state the pertinent facts regarding the appraisal in the balance sheet and audit report.

From the auditor's standpoint, the treatment of the credit arising from the appreciation of fixed assets' accounts is very important. Does the appreciation repre-

sent an adjustment of previous overcharges against operations for depreciation, repairs, renewals, and replacements? Or is it an increase in values in accordance with the reproductive values (value of an asset new at current prices) and the sound values (reproductive value less accrued depreciation)? If the former is the case, the credit may be properly included in the regular surplus; if the latter condition exists, the increase should be shown in a separate surplus account with proper designation, such as "Surplus from Unrealized Appreciation" or "Reserve for Appreciation of Fixed Assets."

When costs are rising, it is desirable to have an appraisal made occasionally to find out if the property is adequately covered with insurance, since insurance adjustments in case of property destroyed by fire are based, not upon cost values, but replacement or sound values. Under ordinary conditions, the auditor should advise against the appreciation of property values in accordance with reproductive values.

TEST YOURSELF ON ESSENTIAL POINTS

1. The machinery used by a firm has been purchased on the instalment plan, with monthly payments, and under the stipulation that title shall not pass until the last payment has been made. Outline your audit of this account and show how it would appear on the balance sheet. (From American Institute Examination.)
2. State briefly what you would do if included in the item of "Real Estate, Plant, and Equipment" is the sum of \$25,000.00 representing the cost of certain improved real estate, with interest and taxes thereon, which the company had purchased seven years previous for the purpose of building a branch factory, which project had been abandoned. (From C. P. A. Examination.)
3. In auditing the accounts of a manufacturing corporation, you find that the company has expended a total of \$3,000.00 worth of its own materials, labor, and expense in constructing a machine for its own use. This machine, if bought in the open market, would have cost \$4,000.00. Is it sound accounting to capitalize this machine at the market price? Give reasons. (From C. P. A. Examination.)
4. How should a reappraisal of capital assets be treated on the books of a going concern?

- (a) When it involves appreciation?
- (b) When it involves depreciation? (From American Institute Examination.)

5. Give reasons why it is sometimes desirable to increase the book values of fixed assets when the increase does not represent additional expenditures, but rather increased valuation as a result of economic changes. How should the appreciation be shown on the balance sheet?

Chapter IX

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

INTANGIBLE ASSETS

Intangible assets defined—Patents and method of amortization—Value of patent dependent upon extent of its profitable use—Treatment of patents expense amortized—What constitutes the cost of a patent—Trade-marks and copyrights—Franchises—Leaseholds—Separation of intangibles from fixed assets.

Intangible Assets. Intangible assets are those which, when considered alone and detached from a going business, may have little or no value, but, when forming part and parcel of a going business, may be the very lifeblood of the business. Some intangible assets such as goodwill, trade-marks, copyrights, trade names, franchises, and leaseholds are a business force or power much like the power that flows from strong character. Their force as a factor in the success of the business cannot be exactly measured, but is none the less a real power of influence for success. Other intangible assets, such as patents, have more definite value and are more difficult to distinguish from tangible assets.

Patents. The life of a patent is seventeen years. Ordinarily, the cost of the patent should be spread out over the operations utilizing the patent during these seventeen years, usually in equal annual amounts. If, however, the patent is of very special features, usable during a limited number of years, it should be written off during those years. For example, a specially patented device might be used in mining. The patent cost therefore should be amortized during the period of mine depletion if that period is less than seventeen years.

Determining Value of Patents. The value of a patent is entirely dependent upon the extent of its profitable use. A patent may have cost a lot to develop, and yet it may, through various circumstances, have become of

little or no use to the business; or a patent may have cost little to develop, yet it may be exceedingly valuable.

Whatever the prospects of development may be, the initial valuation of a patent should be its cost, including expenses of securing the patent, of experimentation and development, and of protective legal activities.

Unless a patent demonstrably produces profit, it should not appear on the balance sheet. Additional earning power from patents can sometimes be established by comparing operating results before and after patent utilization, showing how profits have been affected by patent utilization. But care must be taken not to ascribe increased profits to patents when such increased profits are due primarily to other influences. Profit comparisons made on the basis of the same volume of business and the same general degree of efficiency in operating the business, fairly indicate the value of injecting a patented device or process into the business.

The annual amount charged off as the cost of a patent during its life should form part of manufacturing costs if the patent affects the factory operations. Such costs should be included as part of factory overhead or burden rates if predetermined overhead rates are used in figuring costs. If the patent covers an office device used in the business, the amortization charge will become an administrative expense or possibly a selling expense, or it may be both.

Patents are either developed within a business or they are purchased. When purchased, the unexpired term of the patents should become the basis of amortization. Often patents are purchased with goodwill and no distinction appears as to the separate values of each. If a patent purchased with goodwill had but a year or two to run, its value to the buyer would be almost nil, and the entire purchase might be treated as a goodwill purchase. But, if the patent had a life of five or more years and, besides, had a known operating value, its value would be

considerable and its separate cost should be established. This consideration is important when we bear in mind that a patent depreciates and that goodwill should not be depreciated ordinarily.

The auditor should make sure that the charges to the patent account or to similar accounts like copyrights, trade-marks, etc., represent only actual cost in the case of purchase or legitimate expenditures in the case of internal development. All legal expense in connection with obtaining patents, etc., and for protecting them may be properly capitalized. The preparation of drawings, patterns, and experimental expenses are also chargeable.

Litigation expense in protection of a patent may justly be charged to the Patent Account, but any legal outlay in connection with a suit against others for infringement should not be capitalized through the Patent Account. Such expenditure may be deferred until recovery on the patent infringement suit and then charged against the income from the infringer, but it cannot be regarded as an expense of establishing the value of the patent rights.

Patents or other legalized rights often become valueless or obsolete long before their expiration. Whenever this is true the auditor should insist that the accounts reflecting these rights be written off against Surplus Account. All dead timber should be excluded from the balance sheet.

Trade-Marks and Copyrights. The value attached to trade-marks is analogous to goodwill, since both represent the value of a going business and both become valueless if the business is discontinued or the earning power is nil. Whatever value a trade-mark may have lies in the profit-making power of the business and the legal protection given to the owner to use it. Seldom is a separate valuation placed upon trade-marks acquired unless they have been acquired at a great cost of advertising. When a business is purchased, the value of the trade-marks is

included in the amount paid for goodwill. Therefore, trade-marks are not depreciated as patents or copyrights are, but are ordinarily combined with goodwill and so carried as long as there is no permanent decline in the earning power of the business.

A copyright has a life of twenty-eight years, and may be renewed at the end of that period. The demand for a copyright seldom justifies carrying copyrights as an asset for the entire period of its legal duration. The cost of copyrights may be conservatively written off against the first edition of a publication. If carried for a longer period, the auditor should investigate the probable demand for the publication and determine a reasonable period over which the cost of the copyright should be carried.

Franchises. A franchise is a privilege granted by some governmental unit, usually to public-service corporations, to operate in a certain territory. It is either for a stipulated period or may continue indefinitely. The cost of franchises for a stipulated term of years should be amortized over that period. The auditor should investigate all particulars regarding franchises, including the period and any restrictions or requirements.

Leaseholds. Leaseholds arise in connection with long-term leases, and should be put on the books at cost whenever the lessee pays a lump sum in advance as a premium for the lease. A leasehold may become a very valuable intangible asset to a going concern but a revaluation should not be made and recorded on the books unless it is actually sold. The leasehold should be carried at its original cost or in the case of a purchase, the valuation placed upon it by the vendor through the capitalization of expected income or saving in expenses due to a low rental charge as compared with the rental based on current market prices. In either case, the purchase price is the cost to be amortized pro rata as rent over the period of the lease.

It is desirable that the valuations of intangible assets be shown on the balance sheet in a separate group apart from fixed assets representing physical properties used in the conduct of the business. It is also important to separate patents, copyrights, and similar assets subject to definite methods of amortization from the more general intangibles such as goodwill.

TEST YOURSELF ON ESSENTIAL POINTS

1. Define the difference between intangible assets and fixed assets. How should they be shown on the balance sheet?
2. A corporation carries on its books an account with patents it has acquired from time to time by outright purchase during a period of ten years. They are still carried at original cost, and it is decided to determine their present value, based upon the expiration of the life of the patents. Describe how you would proceed accurately to secure this result. (From American Institute Examination.)
3. A book-publishing company has brought out its first book. Plates capable of 100,000 impressions cost \$20,000.00; composition, proofreading, etc., cost \$6,000.00; the author is to receive a royalty of 25 cents per volume on the books sold. As a first edition, 20,000 books are printed at a labor cost of \$2,000.00, and a further charge of \$1,500.00 to cover the proportion of general expenses. At the end of the year, 10,000 copies had been sold for \$20,000.00. How would you prepare the accounts under the following conditions:
 - (a) If it were ascertained that the demand for the book had practically ceased?
 - (b) If a steady demand would continue until the plates were worn out? (From C. P. A. Examination.)
4. How would you audit the account with franchises?
5. You are auditing the accounts of a company which occupies property, the lease on which has 40 years to run. This lease is carried on the books at \$50,000.00. The lease was acquired 10 years ago and is considered to have a realizable value of about \$100,000.00. Two years ago \$40,000.00 was spent in rebuilding and was charged against earnings. Nothing else has been written off. As auditor, state what plan should be followed by the company and give journal entries. (From C. P. A. Examination.)

Chapter X

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

INTANGIBLE ASSETS (Cont'd)

Goodwill explained—Carried at cost—Determining value of goodwill—Normal returns on investment—Profit-making tendencies important—Goodwill and good management—Methods of valuing goodwill—Goodwill not susceptible to depreciation.

Goodwill. Goodwill represents that intangible value to a business by which it is able to attract trade, to keep and increase it and, out of it, make a profit in excess of a normal return on the business investment. Goodwill is therefore not only consistent profit-making ability, but also ability to make profits in excess of certain normal returns on net worth.

Goodwill is a much more intangible asset than patents; but like patents, it should appear on the books at its cost to the business. Accountants generally feel that goodwill should not appear on the books at all unless it represents a purchase from outside the business, although it is frankly admitted that every profitable business develops its own goodwill. But self-developed goodwill is already inherent in the balance sheet, because the resultant profits express themselves in the strength of the current financial position of the business and, of course, in the Surplus Account. It may be said that no goodwill exists at the time, if business profits are only equivalent to a normal interest return on net worth or investment.

Determining Value of Goodwill. A "normal return" on net worth is a variable percentage. Well-established companies that sell staple products may find a return of from 6 to 8 per cent on net worth to be normal, and such a return may warrant a consistent dividend policy. If such companies are able to earn a profit in excess of the normal rate on net worth, this excess is a measure

of the value of goodwill. Highly speculative businesses usually have little if any goodwill, because their profits, as a rule, are not consistent; and there is always danger that the investment itself may become impaired or actually wiped out.

Normal returns on an investment, or on net worth, are determinable only after a particular business has been in operation for a number of years. That is true even though a normal return may be known from other businesses in the same line. A business may hardly be considered as having goodwill even if successful, if it has operated only for a year or two. It may have the elements of goodwill, but it has not yet acquired sufficient permanency to convince a prospective buyer that it has the capacity for continued future excess profits, which is an essential element of goodwill.

The auditor must bear all of these considerations in mind, whether he is representing the buyer or the seller.

Profit-Making Tendencies a Factor. In computing goodwill, it is important that the auditor be not misled by averages. Averages must be considered, but profit-making tendencies are of greater importance.

Following are the net profits, for a period of five years, of Corporations A and B, both in the same line of business:

Years	Corporation A	Corporation B
1921	\$ 10,000.00	\$ 50,000.00
1922	20,000.00	40,000.00
1923	30,000.00	30,000.00
1924	40,000.00	20,000.00
1925	50,000.00	10,000.00
Total	<u>\$150,000.00</u>	<u>\$150,000.00</u>
Average Annual Profits . . .	\$ 30,000.00	\$ 30,000.00
Average Normal Return . . .	10,000.00	10,000.00
Average Annual Excess Profits	<u>\$ 20,000.00</u>	<u>\$ 20,000.00</u>

From these comparative figures, although the same averages are produced, it is at once apparent that tendencies must receive consideration. Goodwill is purchased not only on the basis of past average earnings, but as much or more so upon due consideration of profit tendencies. Where the profit trend in the past has been upward, this indicates a better future prospect than where the profit trend has fluctuated up and down or has been steadily downward, even though the average results may have been the same in both cases. Certainly an upward trend of profits is more an indication of goodwill than are fairly equal profits from year to year.

Goodwill and Good Management. The risk element in business is turned into profit or loss through management. Thus, goodwill is often created by good management. If good management is responsible for goodwill, what is the future excess earning power of a business worth if that management should cease functioning when the business is sold to others?

It must be assumed that good management has created enough excess profits to pay for its own cost, and that it would be fair to deduct this amount from the excess profits. But good management may not be the only factor responsible for goodwill and, in some cases, good management may not be a factor at all. Due consideration must be given to other elements, such as location, trade names, patents, etc. If any or all of these other elements are not available to the purchaser of a business, full consideration must be given to the probable operating status of the business shorn of these advantages.

Methods of Valuing Goodwill. If goodwill is excess profit-making power, how shall the value of this power be fixed?

If a business has been prosperously active for ten or more years, it has become the custom to value the goodwill at five times the average annual excess profits, pro-

vided the excess profits were quite uniform from year to year or showed consistent gains.

Computation based upon the excess profits of the last five years of operation would be fair if the business were already well established five years ago, and if the annual profits were either uniform or rising during this five-year period. For example, Corporation X showed an excess of profits over a normal annual return on its net worth, namely, 8 per cent on net worth, during a period of ten years ending December 31, 1925, as follows:

1916	.....	\$20,000.00
1917	.....	30,000.00
1918	.....	40,000.00
1919	.....	45,000.00
1920	.....	46,500.00
1921	.....	48,000.00
1922	.....	48,500.00
1923	.....	49,000.00
1924	.....	49,500.00
1925	.....	50,000.00

It is apparent that the X Company's excess profits for the past five years have been consistent and that the company has struck its pace. Again the excess profits in recent years are fairly uniform and indicate a rather steady upward tendency. There is nothing spectacular or irregular in the profit record. It might therefore be safe to say that the average excess profits for these five years should be capitalized as goodwill. This average is \$49,000.00, and the goodwill would be figured at five times \$49,000.00, or at \$245,000.00.

That is one method of figuring the value of goodwill. Some businesses not in existence for ten years or longer might not be able to obtain more than a three-year capitalization of average annual excess profits of a five-year period, and again in many cases the value of goodwill is fixed by bargaining which may or may not have a definite relation to excess earning power. Another method advocated by the Treasury Department in some cases, in order

to fix March 1, 1913, value of goodwill for purposes of computing profit or loss on subsequent sale, is to capitalize the interest rate represented by annual excess profits in relation to net worth or investment. Thus, if the \$49,000.00 were capitalized as an interest rate of 15 per cent, the goodwill value would be stated at \$326,666.67 (\$49,000.00 divided by .15); in other words, \$49,000.00 represent an interest return of 15 per cent on \$326,666.67.

It may be said, generally, that the longer a company or business has been in successful operation, the greater is the value of its goodwill. Again, the absence of competition is an influencing factor. If a concern has a monopoly of a certain product, controls certain raw materials, or owns patents which give exclusive rights, the determination of goodwill cannot be based upon arbitrary rules. In such cases, the goodwill may be largely merged with patent ownership, and when a sale occurs it is often a sale of both goodwill and patents.

In some cases, especially when mergers or consolidations are formed, goodwill represents merely the difference between the purchase price and the value of tangible properties acquired. Whether or not actual goodwill, as previously defined, exists in such cases, does not seem to be the important consideration, although it may be assumed that very little if anything in excess of the tangible property values would be paid for a business that had a weak profit record. It might very properly be urged that purchases of businesses, at a price in excess of tangible property values, do not necessarily give rise to a goodwill charge, and that the excess purchase price might very well be charged against the consolidated surplus account, in the case of consolidations, whenever it is found that goodwill is not apparent from the earning records of the businesses purchased. The only justification for setting up goodwill, in the purchases referred to, is that of better future prospects and earnings because of the consolidation.

Depreciation of Goodwill. To charge off goodwill would indicate that it is used up in business operations. This is untrue. If it were so written off, a secret reserve would be developed. There might be a strong inclination to write it off year by year, if profits were unusually high, but high profits would be the strongest argument for the retention of the account intact. It would seem, therefore, that, viewed from all angles, a goodwill account should represent actual cost and that it should be retained on the books intact, for it is not susceptible to depreciation and is not consumed in business operations. Whether it has the value at which it is carried will be amply demonstrated by the profit record. The auditor must be certain, however, that the account includes only the purchase price and that the acquisition was regular.

Under Federal income tax laws, regulations, and Treasury Department decisions, depreciation of goodwill is not ordinarily permitted. This is in accord with the accountant's attitude that goodwill cannot be a charge to operations.

TEST YOURSELF ON ESSENTIAL POINTS

1. When may goodwill properly appear upon the books of a company as an asset?
2. Discuss the propriety of writing off goodwill, giving your reasons in full. (From American Institute Examination.)
3. How would you deal with goodwill in preparing the annual accounts of a company? Comment briefly upon any points which would need special consideration. (From American Institute Examination.)
4. Define goodwill and discuss some methods of valuing goodwill.
5. Point out how good management is a factor responsible for goodwill.

Chapter XI
AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

DEFERRED CHARGES

Distinction between prepaid expenses and deferred charges—Deferred charges classified as to those definite and indefinite in value and period—Bond discount—Organization expense—Promotion expenses and commissions—Discounts on sale of capital stock—Deferred advertising—Deferred selling expense.

Classification of Deferred Charges. We have already noted the distinction between prepaid expenses and deferred charges so far as their position on the balance sheet is concerned. Of course prepaid expenses are also deferred charges, since they are written off against future operations, but let us bear in mind that they have a very definite current value, and are often salable or cashable items. Deferred charges, in turn, are sometimes prepaid expenses, but rarely have a cash value and are almost without exception recoverable through operational results only.

Deferred charges which should occupy the last place among the assets in the balance sheet are readily susceptible to a dual classification, namely:

1. Definite in value and period.
2. Indefinite in value and period.

Definite Deferred Charges. Definite deferred charges are those that are of a fixed, easily determinable amount, and that are chargeable against operations during a known period in either annual or more frequent instalments. Bond discount is of this nature.

Bond Discount. When bonds are sold for less than par or at a discount, it is entirely legitimate to write off the discount during the life of the bonds, since it is presumed that the whole period will benefit by this mode of financing. The usual custom is to write off the discount in

equal annual portions. However, if the bonds are retired annually or partially at various times before maturity of the last series, the bond discount must be written off in proportion to the retirement provisions. The auditor must examine the amortization provisions carefully and must adjust the balance sheet so that the correct status of the account may be reflected. If, for example, a company issues \$100,000.00 of first-mortgage 5 per cent bonds to be retired at the rate of \$10,000.00 per year and these bonds are sold at 90, it would certainly be incorrect to write off \$1,000.00 each year, especially in view of the fact that the company after the first year has the benefit of only a portion of the funds provided. The discount would in this case be charged off in proportion to retirement as follows:

	Use of Capital	Fractional Portion of \$10,000.00 Bond Discount to Be Written Off	Amount of Bond Discount to Be Written Off
First year	\$100,000.00	10/55	\$1,818.19*
Second year	90,000.00	9/55	1,636.36
Third year	80,000.00	8/55	1,454.54
Fourth year	70,000.00	7/55	1,272.73
Fifth year	60,000.00	6/55	1,090.91
Sixth year	50,000.00	5/55	909.09
Seventh year	40,000.00	4/55	727.27
Eighth year	30,000.00	3/55	545.45
Ninth year	20,000.00	2/55	363.64
Tenth year	10,000.00	1/55	181.82
	<u>\$550,000.00</u>	<u>55/55</u>	<u>\$10,000.00</u>

Discount on bonds really indicates a corporation's credit rate of interest or its rate of borrowing power, and is in reality, therefore, an additional interest charge. By writing off the discount annually provision is really made for the effective interest rate, and the charge should be to Bond Interest Account rather than to Profit and Loss. Wherever possible the charge should be made monthly for one-twelfth of each year's portion, in line with a gen-

* Increased arbitrarily by one cent to take up the odd cent necessary to produce an even \$10,000.00.

eral recommendation that monthly statements of operations be had in every business.

Every auditor would do well to become familiar with actuarial science and with investment accounting so that he will be fully equipped to deal with any complexities in connection with the amortization of bond discount or bond premium and sinking fund requirements.^①

Some other definite deferred charges which might be mentioned are Prepaid Royalties, chargeable against sales as the books or services are billed in the future and Prepaid Commissions on goods yet to be delivered, chargeable to the sales as booked, and items that generally represent a fixed outlay definitely chargeable to some determined business activity in the future.

Indefinite Deferred Charges. Most of so-called deferred charges are quite indefinite as to present value, and as to the period of their efficacy in operations. It will generally tax the judgment of an auditor quite considerably to value these assets for balance-sheet certification. Quite often their verbal description on the balance sheet, with the proper comments, will sufficiently notify the reader of the balance sheet as to present and future values. Suffice it to say that a banker or creditor would probably attach no value at all to indefinite deferred charges, and it may not always be possible for an auditor to value them. In that case the auditor's certificate should plainly state that the values shown on the balance sheet are book values. The following are types of indefinite deferred charges:

1. Organization expense.
2. Promotion expense and commissions or discounts on sales of capital stock.
3. Deferred advertising.
4. Deferred selling expenses.

Organization Expense. If there are merely nominal

^① *Mathematics of Accounting*, by Curtis and Cooper, will be found very useful.

expenses in connection with organizing a business or a corporation, no justification can be found for setting these up as deferred charges to future operations. If, however, it can be demonstrated that the expenses of this character were unusual in amount and that the expenses were of such nature that future operations would benefit thereby, say because of excellency of organization, then it is permissible to spread such expenses over a period of from three to five years. Again, if these expenses were extraordinarily heavy, the effect of charging them all against the first year's operations would distort the Profit and Loss Account.

But let us assume that the organization expenses are being spread over five years in order not to distort the operations of the first or any one year, and we find that the company has during the first year made a net profit equal to the deferred charge for organization expenses for the next four years, could we justify the payment of a dividend out of the first year's net earnings? Legally a dividend could be declared, but one would be inclined to criticize the directors for distributing profits so long as such an intangible and positively valueless asset as organization expense remained on the books.

Would the writing off of organization expense after the first year necessarily distort the Profit and Loss Account? If the profit and loss statement were properly prepared, no distortion would appear, because the net profits from operation could be clearly shown and the organization expense could be deducted as an extraordinary charge. A true comparison of operations could, therefore, still be obtained between the first year and succeeding years. The distortion, if any, would appear in the balance sheet and then only if the inclusion of organization expense would result in a deficit and the deficit were shown as a total. One is inclined to believe that a wise and conservative banker would look with more favor on a balance sheet showing a net profit from operations and a

deduction therefrom for the entire amount of organization expense, although the result might be a deficit, than on a balance sheet which carried the organization expense as a deferred charge. The net worth might be expressed as follows:

Capital Stock	\$100,000.00	
Add—net Profits from operations for the		
year	\$20,000.00	(Deficit)
Deduct—Organization Expense	25,000.00	5,000.00
Net Worth	\$ 95,000.00	

If, in the same case, organization expense were written off at the rate of \$5,000.00 a year, the net worth would show up as \$115,000.00, which would hardly reflect the real financial strength or position of the company, especially in view of the fact that the next year might not yield a profit. We are therefore rather inclined to believe that from the standpoint of conservatism, organization expenses should be charged off the first year and in such a manner that the results from operations would not be affected. Only in exceptional cases, then, where the organization expenses actually affect future operations or where the process of organization is long drawn out, is found a real justification in deferring charges of this nature.

It is the auditor's duty to impress upon the executive of any business that his balance sheet should be composed of assets representing real values and of only such deferred charges as truly benefit or affect future operations. An auditor certifies not only to the balance sheet as a statement; he certifies to the values of the items included in the balance sheet. He must be ready to state that, in his opinion, the balance sheet truly sets forth the financial position of his client. No unqualified certificate can be given to a balance sheet containing numerous or large intangible assets, or deferred charges. The business man should realize that the value of an auditor's

certificate is limited by its qualifications, and that a true statement of financial position, even though at times unfavorable, carries more weight with creditors and bankers than one filled with intangible items. This is especially true if the statement shows that results from operations are favorable and that financial position although somewhat less favorable is the result of a commendable and conservative policy to reduce assets to actual and true values.

In analyzing the Organization Expense Account the auditor must make sure that no items included therein represent operating expenses. Cases are common where many charges have been made to this account for regular operating expenses in order that a good showing could be made at the end of the first year or to foster additional sales of stock or securities. In the case of external promotion, the auditor should call for the contract with the promoter in order to assure himself that the company has not paid any of the expenses which the promoter himself was to pay—in fact, that all the stipulations of the contract were properly complied with and that there is no further liability on the part of the company to the promoter. Some promotion contracts provide a share of the annual profits to the promoter for a period of years. Such a liability and its extent must be considered and thoroughly examined by the auditor.

Promotion Expenses and Commissions or Discounts on Sales of Capital Stock. Promotion expenses appear, as a rule, in cases where a corporation employs a promoter to create a market for the company's product, or to secure various kinds of business advantages, such as factory sites, banking connections, or stock underwriters. Then, again, the commissions paid for the sale of stock or the discounts allowed an underwriter may be regarded as promotional in character. Such activities do, of course, indirectly affect the progress of a business and they are, therefore, often deferred. Whether they should appear

on the balance sheet as deferred charges, however, is quite another question.

It does seem somewhat arbitrary and unfair to advocate that promotional expenses be written off as expenses when incurred, but when consideration is given to their very indefinite character as assets, it appears equally unfair and certainly unsound to advise their incorporation as deferred charges in the balance sheet. If carried at all as assets, they should certainly be written off in a very short period, possibly within a year or two.

It may be assumed that such assets would not deceive a banker or any other wide-awake creditor, but an auditor should remember that statements are also made for public use, and in order to attract prospective investors. Many unfamiliar with business facts, might readily be deceived as to assets included under deferred charges, especially when their exact nature is not disclosed and they are merged with other assets, as often happens in condensed balance sheets published for general information. In the author's opinion, promotion expenses should be written off at once, not in a way to injure the statement showing results from regular business operations, but separately as an extraordinary charge. Conservatism will be best served in this manner.

In our opinion little if any justification appears in carrying commissions paid as discounts allowed in connection with the sale of capital stock, as deferred charges. These are really deductions from the capital coming into the business and they offer no instrument which will aid in carrying on the business successfully. They merely reduce the amount of actual cash capital coming into the business, and it is the net capital received that affords the working fund for conducting business operations. A highly successful business would incur very little, if any, expense in selling its capital stock. In fact, such stock might sell at a premium and thus afford additional capital or paid-in surplus. If stock sold at a premium adds

to capital, it would seem that stock sold at a discount, or for a certain commission, decreases the capital fund and becomes the converse of paid-in capital. It is recommended, therefore, that the auditor show discounts on capital stock sold, or commission paid for its sale, as a charge against surplus or as a deduction from the par value of the capital shares issued; thus—

1. If Surplus exists—		
Capital Stock.....		\$500,000.00
Surplus	\$200,000.00	
Less—Discount on Sale of Capital Stock.....	10,000.00	190,000.00
Net Worth.....		<u>\$690,000.00</u>
2. If No Surplus—		
Capital Stock.....		\$500,000.00
Less—Discount on Sale of Capital Stock....		25,000.00
Net Worth or Capital.....		<u>\$475,000.00</u>

This does not mean that in Case 2, the discount should be charged against the Capital Stock Account, but that it should be shown as a separate Profit and Loss item on the books, but not as an expense in the Profit and Loss statement. The charge affects Net Worth, but not the results from current business operations.

Deferred Advertising. Advertising supplies and catalogs which have a definite going or usable value to a business should be included with Prepaid Expenses on the Balance Sheet. They are of current use and value to a business in much the same way as raw materials to be converted into manufactured product, and they represent, as a rule, supplies which conform to a current selling policy only. They are, therefore, absorbed into business operations and create business values currently. They will certainly be considered in price making, a situation which does not always hold true of the items included in Deferred Charges, many of which are, as we have seen, costs of securing capital or of more intangible activities.

The auditor will find, however, that the Deferred Advertising Account, will often include items which are not inventories of advertising supplies but actual expenses covering services, publicity campaigns, distribution of samples, traveling, and numerous other expenditures which are being deferred because their benefits are to accrue at a future time. The greatest care must be exercised by the auditor in inspecting this account. Sometimes when an audit is made at a time considerably beyond the date to be covered by the certificate, the results from the expenditures deferred can be fairly well determined so that a much better estimate of the deferred values can be formulated.

Current newspaper and magazine advertising cannot be considered as a deferred charge. However, a special campaign conducted by a firm or through an advertising agency would entail heavy expenditures, the results of which could not possibly become evident until some future date. Expenses of this nature may very justly be deferred and subsequently charged against the revenue they are to produce. The auditor should recommend, however, that deferred expenses of this nature be written into operations as quickly as possible, since they are at best very elusive and uncertain assets.

Deferred Selling Expenses. In quite a number of industries, the great bulk of selling expenses precedes by a considerable period the delivery of the product. This condition exists wherever production or sales are seasonal, and it is quite justly felt that the period of deliveries or sales should be burdened with the selling expenses producing the sales. If expenses of this kind are deferred at the end of any fiscal period, the auditor must make sure that a similar procedure was followed at the beginning of the period, so that the selling expenses included in the period may be correctly stated.

A number of points must be considered well in passing

judgment on the validity of treating a portion of selling expense as a deferred charge. These may be tabulated in question form as follows:

1. Was all the deferred selling expense incurred to secure orders for future delivery, or was part of it incident to securing current orders?
2. How many of the orders will be canceled?
3. How much of the expense was really productive?

It is somewhat difficult to divide a salesman's time and expense between efforts expended to secure orders for immediate delivery and orders for future delivery. Again, the orders for future delivery may be incidental to his regular activities of securing current business, especially if, for promotional and publicity purposes, he is kept on the road constantly. Probably the relative volumes of current and future orders obtained is the best method for distributing the expense. But can the entire portion so determined and so applicable to future deliveries be deferred? May not some of the orders be valueless in that they may be canceled? To answer this question the auditor should determine the percentage of cancellations to orders booked for a period of years, and he should deduct that percentage, if it has not already been done, from the portion of selling expense deferred.

Selling expenses, other than for traveling, if incurred in connection with obtaining orders for future delivery, may legitimately be deferred. Here again, however, we are confronted with the possibility that these expenses may or may not be productive, as only the results at some future time can give definite information on this subject.

Where sales are fairly normal from year to year, and no extraordinary selling campaigns are inaugurated, the auditor should discourage the practice of deferring selling expenses. In such instances the expenditures would run on a fairly uniform basis, and much of the needless work of proration between periods could be eliminated.

Whatever expenses are deferred, should be charged off

as deliveries are made. This implies, of course, considerable statistical work, in that the deliveries must be checked off against the orders previously taken for future delivery and the deferred expenses credited, in proportion as deliveries are made. The sales manager should be held responsible for furnishing these statistics because the information yielded by them is of considerable value to him and will verify or disprove the established averages for cancellations. They will further prove to him the effectiveness of the selling expense outlays for special campaigns through the mail orders he receives in consequence of such campaigns.

The auditor must again be cautioned to view Deferred Selling Expense with a highly critical eye. Its value in a statement of assets is a very dubious one and would carry practically no weight with a banker, a creditor, or even a stockholder, unless perfectly established as entirely valid. The auditor's report should contain a very concise résumé of this deferred item, so that nothing would be left to the imagination. Items of this character have no place in the balance sheet unless established as an asset beyond the slightest possibility of doubt.

TEST YOURSELF ON ESSENTIAL POINTS

1. How should deferred charges be classified?
2. Define definite and indefinite deferred charges.
3. Explain how you would verify the amount of bond discount that should be carried as a deferred charge.
4. At what point do expenses cease to be organization expenses and become operating expenses? (From C.P.A. Examination.)
5. How should discount on capital stock be treated on the balance sheet?

Chapter XII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

NOTES AND ACCOUNTS PAYABLE

Classes of notes payable—Notes given for loans—Procedure in verification—Notes given in payment of other obligations—Accounts payable—Steps in the audit of accounts payable where accounts payable ledger is used—How to make sure of determining the existence of all liabilities—Voucher-system audit.

In the audit of assets, the values placed upon them depend largely upon estimates, and estimates are based upon the exercise of judgment and opinion of the accountant guided by the most accurate principles and methods. The element of opinion is not such an important factor in establishing values of liabilities, because most liabilities are definite in amount. For a going concern they must be paid in full. The chief difficulty, for the auditor, therefore, is to ascertain their exact value and to be sure that all existing liabilities are properly stated on the balance sheet. The auditor should not assume that all liabilities are recorded on the books. He must go to all available sources to discover whether there are any other liabilities other than those recorded on the books. In the following discussion the means of determination of all the common classes of liabilities will be considered.

Notes Payable. Notes are given either in evidence of loans made from banks or others, or in payment for commodities, services, or contracts. The auditor should therefore schedule notes payable under the following two classes:

1. Notes given for loans:
 - (a) From banks.
 - (b) From others.
2. Notes given in payment of other obligations covering:
 - (a) Purchases.
 - (b) Contracts.
 - (c) Services.

It might be advisable to suggest a third class, viz., notes given by the company to its officers or employees. At any rate, whether or not these are put into a separate class, they require very special and thorough examination.

Notes Given for Loans. These should be scheduled in two groups, namely:

1. Loans secured.
2. Loans unsecured.

They should be listed in the following manner under these two groups:

1. Date of note.
2. Creditor.
3. Due date.
4. Rate of interest.
5. Amount of note.
6. Interest accrued to date of audit.
7. Prepaid interest (if discounted) at date of audit.
8. Extra indorsers.
9. Renewal or original.
10. Collateral given as security (for Secured Loans).

Statements from the creditors should be furnished to the auditor direct, and these statements should show the details listed in the auditor's schedule. In requesting the client to furnish him with the statements from the creditors, the auditor should see that the letters addressed to the creditors call specifically for a list of any collateral deposited with the loans. The auditor's certificate or balance sheet must indicate clearly what assets of the client have been hypothecated. All loans must be investigated further through the client's minute books, where the board of directors' authorizations should be found or where the general provisions empowering some official to make loans up to certain amounts could be verified.

All noteholders should be circularized. The statements received from them should then be compared with the loans or notes scheduled on the books and, of course,

with the auditor's own list. Any discrepancies should be ironed out immediately. The cash-receipts record must be scrutinized for every loan made during the period under audit, whether outstanding at the end of the period or not. Cash or an equivalent must offset the entry for every note payable. The canceled notes for previous loans or payments should be demanded by the auditor. These notes must be clearly canceled so that their negotiability is fully destroyed. Where such canceled notes are not produced for inspection, the auditor must cover himself by stating that fact in his report together with an explanation of the deficiency from some responsible official.

Wherever notes-payable registers are kept, the balances shown therein must first be compared with the creditor's statements and then with the general ledger controlling account. Where notes are used extensively, the auditor should suggest a note book wherein all notes are numbered and stubs or carbons are used to duplicate the notes. Under such a plan, all canceled notes should be pasted on the stubs. The open stubs must then agree with the note register and the general ledger controlling account. The canceled notes should be compared with the stubs so that assurance may be had that the stubs and notes are in agreement.

Any alterations on either the stub or the note after cancellation should be very carefully investigated and traced to the cash records of receipts and payments, or to whatever accounts were affected by the making and payment of the note. If a note book is provided wherein each note has a number, then, of course, every number must be accounted for by a note still out, a note canceled, or a note spoiled (which should be pasted on its stub). Wherever a numbering system is in use, the note number should be called for when circularizing the creditor.

A concern sometimes finances itself by either selling its notes to a broker or by having the broker sell the

notes to other investors or banks. The broker should be requested to furnish a certificate to the auditor for all notes purchased outright and held or, in case the broker sold the notes to others, he should report on the notes sold and the notes still in his possession. In any event, the proceeds must be traced into the cash-receipts record by the auditor, and any unsold notes from which no proceeds were derived must be listed. These latter may be entirely disregarded and, therefore, not included in the balance sheet, or they may be shown as liabilities offset by a charge to the broker. Notes sold by brokers should bear interest from date of sale and not from date of note. The interest account must, therefore, be carefully checked and all accrued interest set up in the accounts.

Many loans are made through demand notes. In such instances, as a rule, interest is paid monthly. The auditor, however, must assure himself that such interest has been paid regularly or else he must schedule the accrued interest to the date of the audit; he must, of course, also schedule any accrued interest on demand notes since the date of the last interest payment.^①

Notes in Payment of Other Obligations. Notes given in payment of other obligations should be carefully investigated. Notes given in payment of contracts or purchases can be verified from the correspondence files and by certificates from the holders. If the correspondence file yields sufficient evidence of the validity and nature of the liability, no certificate should be demanded. The latter course sometimes is misunderstood by the holder. The auditor should make it a point to determine why notes are given in payment of purchases. Either the procedure may be perfectly normal where large quantities are purchased (often as an accommodation to the vendor or to secure low prices), or it may indicate financial weakness. If there is any degree of suspicion that the latter condition exists, the auditor should investigate

^① The subject of accrued interest will be more fully discussed later.

the paying ability of the client generally. The results of such an investigation may reveal that there really is no financial weakness, but an improper provision for working capital.

In this connection the auditor might render some valuable assistance by preparing for his client a comparative balance sheet and draft therefrom an "application-of-funds" statement which will clearly indicate the sources and uses of funds and the causes for shrinkage of working capital. A business may be financially strong and yet unable to liquidate properly its current indebtedness. If it invests too heavily in fixed assets, its working capital is affected. There should be a certain proportional relation between fixed assets and current assets, so that the latter will be sufficiently strong to carry the expenses associated with the former. There must also be a limit to current liabilities carried by the current assets. A thorough study of the tendencies of indebtedness and the relation thereof to paying ability should enable the auditor to throw much light on the financial position of his client and the underlying causes of that position.

Notes given in payment for services are generally indicative of weakness. This statement may not hold with reference to closed corporations, wherein officers may be willing to permit their salaries to remain with the company either to assist their colleagues temporarily or to be exchanged for an additional block of capital stock later on. In usual cases, however, services should be paid for promptly by check or cash. The character of all notes given for services of any kind should be fully uncovered by the auditor and the recipients of the notes should be requested to state their side of the case. Notes of this kind should be so completely investigated that no suspicion as to their meaning should remain in the auditor's mind, and they must in every instance be related to the client's paying ability. The same care must be exercised in an investigation of notes of every description and char-

acter (whether for services or not) given to officers and employees of a business.

Accounts Payable. The audit of Accounts Payable will vary according to the systems of accounting used by various companies. These are of two kinds:

1. When an accounts payable ledger is used.
2. When a voucher system is in use and the accounts payable ledger is dispensed with.

Accounts Payable Ledger Audit. Wherever accounts payable ledgers are kept, the first step in the audit of Accounts Payable should be the verification of the balances in the accounts and a comparison of these with the accounts payable ledger trial balance. The trial balance total must then be compared with the general ledger controlling account—if such a controlling account is kept. The second step embraces the analysis of the accounts and the exclusion therefrom (if necessary) of any accounts which are not strictly accounts payable, or of any debit balances representing charge backs, overpayments, etc. Debit balances in the accounts payable ledger should be included with the receivables on the balance sheet. Analyses of the Accounts Payable are made with two objects in view:

1. The determination of the age of the accounts.
2. The elimination from the accounts of all items that are not liabilities to trade creditors or for contracts.

The auditor should inspect all accounts and inquire very carefully into their character. If they are past due and not in dispute, the past-due accounts should be separately stated in the balance sheet of the auditor's report. If they are in dispute, the reasons for this status should be made clear. Any doubtful or irregular items should be ironed out by obtaining a certificate or letter from the creditor. Reference to the correspondence files sometimes proves of considerable value, and the statements from the creditors should be compared with the balances. This

latter comparison may reveal the fact that all liabilities have not been included.

Procedure to Account for Liabilities. To assure himself that all liabilities have been included in the accounts, the auditor should do the following things:

1. Examine the minute book of the company: Liabilities may have been assumed by the board of directors which were not entered in the books or which, for the sake of policy it would have been unwise to enter in the books for fear of making a confidential matter common property. Nevertheless the auditor must include such liabilities in his report.
2. All bills or invoices from vendors or creditors not entered should be examined, as some of these might apply to the period audited.
3. All entries of bills made subsequent to the period under audit must be examined, as a number of these may belong to the prior period audited. This examination must be intelligent and somewhat tolerant, because investigation generally shows that the amounts thus entered subsequent to the closing of any fiscal period appear in all fiscal periods. Thus an auditor examining the accounts of a company for a calendar year may find a number of December bills for telephone or telegraph service, expressage, cartage, etc., entered in January of the following year. He must not arbitrarily conclude that these accounts must be thrown back, because if he goes a little farther, he will probably find that the January of the year he is auditing contains about as many charges applicable to the year prior. Judgment must therefore be used in adjusting the Accounts Payable. Small, unimportant items may be disregarded, but any account of consequence must always be considered with this additional advice—that if the auditor insists on adjusting the Accounts Payable fully, it is better to include all of the liabilities, no matter how small, and adjust the accounts of the year prior, than to omit a single important item because of the tendency to believe that the liabilities between years run fairly uniform.
4. Bills covering goods in transit should ordinarily be set up as Accounts Payable and the goods themselves included on the balance sheet as inventory in transit. The object of the balance sheet in an auditor's report is to set forth truly the financial position of the client. Therefore, all liabili-

ties of the character just described must be included, even though the goods have not yet been received.

5. Sometimes there are liabilities for goods sold on consignment, as consignment accounts are often carried in memorandum form only. The full liability to the consignor should be included in the Accounts Payable if the goods have been entirely sold, and separately indicated as a liability to consignor if partly sold. Since the former represents a completed transaction, the liability is the same as to a trade creditor, whereas the latter case presents an account in formation and should therefore receive a separate designation.
6. As a final precaution, the auditor should obtain a certificate from the proper official of a company stating that all liabilities for purchases, expenses, contracts, etc., have been included in the books of account and that there are no claims, law suits, or liens registered against the company.

Voucher System Audit. Practically all progressive firms have adopted voucher systems in connection with their Accounts Payable. Where these exist, all liabilities are entered in the books as incurred and the verification of the Accounts Payable is much simplified. But even here it is necessary to make certain that all goods received on the last day of the period audited, as shown by the receiving clerk's records and all goods in transit, are not only properly included in the assets, but in the liabilities as well. These items, because of certain delays in internal checking, might readily be omitted from the voucher register. Of course, the voucher register for the month or several months after the period under audit, should be searched for any items properly belonging to the prior period.

Where the voucher system is in use, we rarely find accounts payable ledgers. They are unnecessary because the file of unpaid vouchers is in itself the equivalent of a ledger. Moreover, the balances drawn up from the unpaid voucher file must agree with the unpaid items on the voucher register and with the general ledger controlling account for vouchers payable as well.

In verifying the latter account, the auditor may follow one of two courses, he may list the open unpaid items from the voucher register, comparing the total thereof with the controlling account, or he may make an independent list of the unpaid vouchers from the unpaid-vouchers file and compare the totals thereof with the controlling account. Either method should give the same result, and if the auditor is very conscientious he may first prepare the list from the unpaid-vouchers file, compare this with the unpaid items in the voucher register, and then finally check his totals against the general ledger controlling account.

TEST YOURSELF ON ESSENTIAL POINTS

1. How would you deal with the company's notes payable indorsed by an official of the company in auditing a balance sheet as at June 30, 1926, to be certified by you? (From C.P.A. Examination.)
2. A corporation issued its note for \$30,000.00. The note became due during the term which you were auditing. A note for this amount, corresponding in all particulars with the note record, is submitted to you as evidence that the amount has been paid. Said note is marked "paid," but does not bear the signature or paid stamp of the bank to whom it is purported to have been paid. The treasurer asserts that possession by the corporation of this note is sufficient evidence of its payment. State (a) Your opinion thereof. (b) Your reasons. (From C.P.A. Examination.)
3. To what extent would you consider it necessary to verify the notes payable, and what reference to such verification would you make in your report? (From C.P.A. Examination.)
4. To what extent should an auditor hold himself responsible for the correctness of notes payable? (From C.P.A. Examination.)
5. State definitely the procedure you would follow in verifying the liability of a corporation on account of notes payable as shown by its books. (From American Institute Examination.)
6. An auditor is engaged by a man who is buying an interest in a firm for the purpose of reporting upon the assets and liabilities of the firm as at a given date and upon the profits of the three years just prior. Upon the auditor's report, he purchased an interest in the firm and in its assets and liabilities. Six months later it is discovered that there were bills payable due by the firm amounting to \$10,000.00, at the time the auditor made his examination and

not reported upon by him and that these bills had continuously been due by the firm for one year prior to such examination, but no record of same had been made upon the books. Under what circumstances could the auditor be considered guilty of negligence in not discovering this fact and under what circumstances could he be considered entirely free of any blame in the matter? (From C.P.A. Examination.)

7. Point out what you would like to find by way of system that would simplify the task of satisfying yourself that all outstanding liabilities of a business are properly taken up in the balance sheet. (From American Institute Examination.)

8. On February 15, 1924, you are called upon to audit the books of a concern for the calendar year 1923. State in detail how you will verify as of December 31, the balance-sheet items of accounts payable? (From American Institute Examination.)

9. In an audit covering the year ended December 31, you discover that invoices aggregating \$2,000.00 for bricks and other building materials to be used in the construction of an addition to the plant, were received after the books were closed, although the materials were actually received on December 15. As the materials were not taken into the inventory and the invoices were not on the books, would you require any adjustment? Give reasons. (From C.P.A. Examination.)

Chapter XIII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

ACCRUED LIABILITIES

Accounting on accrual basis—Methods for auditing accrued interest, wages and salaries, taxes and sundry accrued accounts—Discovering liabilities by examination of minute book—Dividends payable.

There are few concerns to-day that do not keep their accounts on the accrual basis. Income is no longer considered synonymous with cash received, and expense is no longer confined to expenses actually paid. Income consists of the earnings of a business growing out of a period of operations irrespective of collection and independent of the Cash Account. To put it more clearly, income accounts are credited for all values leaving a business in the form of sales, services, etc., without any regard to the Cash Account. Some of the sales may be cash sales, but that is merely a coincidence of cash receipts and income and in no way affects the principle just laid down. Expenses consist not of expenses paid but of all expenses actually incurred in obtaining income or in connection with the operation of a business during a designated period.

Accounting on Accrual Basis. The first development in accounting on the accrual basis came with the establishment of Accounts Receivable and Accounts Payable. The use of these accounts in even single-entry bookkeeping injected an accrual element into accounting, so that when profits were figured on the basis of comparison of assets and liabilities, the results of operations were revealed on an income and expense basis rather than on a mere cash basis. By giving effect in the comparative statements of assets and liabilities, personal accounts charged and credited were considered, and not cash receipts and disbursements. One can readily see that if a correct inventory were taken under a single-entry system, so that all

assets and liabilities would be expressed (including deferred charges and accrued items), the profits established by a comparison of such actual inventories between two dates would necessarily include (whether intentional or not) the results of operations on an accrual basis.

In modern double-entry bookkeeping, we no longer consider Accounts Receivable and Accounts Payable as accrued accounts. We think of accrued accounts as accumulating assets or liabilities which are collectible or usable, and payable or due, respectively, at some future time, even though the portion accrued to the end of a certain period represents an asset or liability at that date.

Under accrued liabilities in modern accounting we find the following accounts:

1. Accrued interest.
2. Accrued wages and salaries.
3. Accrued taxes.
4. Sundry accrued accounts.

Accrued Interest. Accrued interest is a liability concomitant to other liabilities or superimposed thereon. Thus the partial liability for monthly interest on an issue of bonds, which is payable on a later date, represents the accrued interest on those bonds. It is here in the strictest sense of the word an accumulation liability from last payment of interest to the next payment, so that if an audit covers a period ending between two such interest-payment dates, the accrued interest is that accumulated liability from the date of last interest payment to the date at the end of the audit period. The same accrued liability would exist at a certain date between interest-payment dates on loans from banks where the interest followed the note.

In most modern accounting systems, provision is made whereby the accrued interest is recorded monthly. Under such conditions it is the auditor's duty to verify the accrued liability thus constructed. In quite a number of cases, however, the auditor will find that the accrued

interest has not been taken up in the books, and it then becomes his duty to construct the account and to recommend its inclusion in the books. He must be on guard, however, with reference to the procedure at the beginning of the period he is auditing. If he sets up the liability at the end of the period and charges interest expense, he must eliminate that portion of interest paid after the beginning of the period which represented an accrued liability of the period prior to the audit.

Accrued interest liability will, as a rule, be found in connection with long-time loans or loans running beyond the period covered by the audit where the interest follows the note. Discounted loans, of course, if over thirty days' maturity or if extending beyond the period under audit, give rise to the Prepaid Interest Account discussed heretofore. The interest on demand loans is generally paid at the close of every thirty days. Therefore any accrued interest on these will usually represent the partially expired portion of a thirty-day interest period. Accrued interest on bonds can readily be figured, and represents the liability since last interest payment. Here the auditor must make sure of his accounts by examining the redeemed coupons to determine the last coupons clipped. If the bonds are not coupon bonds, the auditor must satisfy himself that all deposits up to and including the last interest-payment date in the period, for interest due on the bonds, have been made with the trustee or the interest-paying agent and that the Interest Expense Account has been properly charged. The accrued liability, if any, will then represent the interest payable, but not yet due from the date of the last interest deposit. The interest deposits with a trustee should be offset by the coupons presented, paid, and canceled, or by the receipts from the investors obtained through and from the trustee when the bonds are other than coupon bonds. Any balances remaining with the trustee should equal the sum of the coupons outstanding and unpaid. The hold-

ers of these should be circularized, if possible (where registered), and should be requested to cash them.

The accrued interest liability should be constructed by the auditor, or verified by him (if already on the books), in connection with the basic liabilities on which the accrual rests—i.e., in connection with the examination and scheduling of the notes payable or bonds payable. The determination of the accrued liability is entirely dependent upon the information obtained from the basic liabilities. The bank or the holder of a note should be asked to furnish information on the amount of interest accrued in connection with the certificate covering the loan proper.

Accrued Wages and Salaries. Whenever the voucher system is in use and a voucher register in operation, accrued wages and salaries are as a rule included in the accounts and form a part of Vouchers Payable. For purposes of balance-sheet construction it is desirable, however, for the auditor to separate the Vouchers Payable into regular creditors' accounts and the various accrued accounts so that each may stand out distinctly.

Where no voucher system is in vogue, it sometimes becomes the auditor's duty to set up the liabilities for accrued wages and salaries. As an audit is started subsequent to the payment of wages or salaries chargeable to the period under review, there should be no difficulty in determining the amount of these liabilities accrued at the end of the period. It is sufficient if this be done on a fractional basis rather than by reference to each individual time card. Thus, if four days of a weekly pay roll had accrued, it would be satisfactory to take four-sixths of the entire pay roll paid unless some unusual condition surrounds the case in question; if, for example, the week ended with a Saturday and the men worked until Saturday noon only, then the pay roll should be split on a fractional basis of hours instead of days.

The auditor must again be cautioned that if he sets up

an accrued liability for wages and salaries at the end of the period, he must assure himself that the accounts reflect the same adjustment at the beginning of the period.

In setting up a liability for accrued salaries, the auditor must include not only the salaries of officials and clerks but also any salaries due in part to traveling salesmen or agents.

Accrued Taxes. Accrued taxes can be determined from the last tax receipt covering the taxes for the period prior to the one under audit. This tax receipt should furnish a correct basis for estimating the taxes for the period audited, and unless additions to property have been made before the assessment date or the rate changed, the tax should be the same. If additions were made which were assessed, the amount of the assessment can readily be determined through the local taxing body. Changes in rates can be learned in the same way. A concern keeping its books on a monthly basis should set up each month's tax accrual, thereby automatically building up the entire liability at the end of the year and to that extent stating its monthly expenses properly.

Whenever monthly profit and loss statements are prepared, the plan can be so extensive as to include not only property taxes but the Federal income tax as well. The Federal income tax so accrued on monthly net profits should be deducted from the net profit on the profit and loss statement and not in any way considered as expense in the same way as a real estate or personal-property tax. Under the Federal Tax Laws the Federal income taxes actually paid cannot be deducted as expenses in making out the Income Tax returns. State income taxes and all other state taxes actually paid are deductible.

Before setting up the amount of accrued taxes, the auditor must satisfy himself that all taxes for years prior to the one being audited have been paid. This can generally be accomplished by an examination of the tax

receipts, which as a rule indicate the year for which the taxes were paid; if they do not, a trip to the tax-collector's office will be necessary.

It is also necessary to determine whether any tax liability to the Federal Government exists, representing additional assessments for prior years. These assessments may be disputed by the client, but the auditor should nevertheless see that a proper reserve be created out of Surplus to meet the contingency, if it arises. Such a reserve may be carried as a Surplus Reserve, that is, as appropriated surplus.

Sundry Accrued Accounts. Often certain accrued liabilities are entirely overlooked by a number of concerns. If they are consistently overlooked year after year and run fairly uniform as to amounts, the operating expenses will not be visibly affected. If, however, they vary radically from year to year, the results from operations will be affected. The solution is to include all these liabilities at the end of every period, whether they vary from year to year or not. Under this class of accrued liabilities often omitted, are traveling expenses, sales commissions, legal expenses, damage claims, and declared dividends.

The auditor should secure a list of all traveling salesmen and should then obtain the expense reports paid just subsequent to the close of the period under audit. These reports will clearly reveal the amounts accrued, if any, at the end of the period. If the accrued portions were not entered on the books and are of sufficient amount, the auditor must provide for the liability and adjust his statements accordingly. If the amount be small, no adjustment need be made. Commissions payable on sales must also be taken into consideration, but the practice of the client as to payment of these must first be determined. In some companies commissions are not payable until the customer has paid his account. If this be the case, the commission should nevertheless be accrued, since it is a charge against the profits derived

from the sales included in the period. Other concerns pay commissions as soon as goods have been shipped and billed, and the liability must be set up at that time.

Examining Minute Book. Lawyers are proverbially slow in sending their bills, and before a true statement of liabilities can be constructed the auditor should make sure that all legal bills have been received, or he should request that such bills be presented, showing the charges to the end of the period he is auditing. Often evidence of litigation appears only in the minute book; hence a careful perusal of the minutes is necessary. In fact, the minute book should be carefully examined with regard to many other matters, and copious notes made of its contents so far as the operations, expenses, income, assets, and liabilities of the concern are affected. In the minute book, too, there may appear evidences of liability for damage suits not covered by insurance. The papers and legal opinions in connection with such suits should be carefully inspected and the proper accrued liabilities or reserve set up. If it appears that a certain amount is clearly conceded by the attorneys, then the liability should be stated as an accrual. If the case is not clear and the outcome doubtful, a proper reserve should be constructed.

DIVIDENDS PAYABLE

Dividend declarations also appear in the minute book, and whenever a dividend is declared the books should register an entry charging Surplus or Undivided Profits and crediting Dividends Payable. A dividend declared, in the eyes of the law, is an account payable, and should be recorded as such. It must not remain as part of the Surplus Account or the net worth of the company will be misstated. Consequently all dividends declared, even if on the last day of the company's fiscal year, must be shown as a current liability and thus reduce the net worth to the extent of the dividend.

TEST YOURSELF ON ESSENTIAL POINTS

1. What is the significance of the item on the liability side of the balance sheet, "wages or other expenses accrued?" (From American Institute Examination.)
2. Name three accrued liabilities which an auditor might reasonably expect to find in connection with almost any audit engagement and explain how he would ordinarily verify the amount of each.
3. Give in detail a method for verifying the payment of interest on coupons from bonds of a company you are auditing, and state how proof of such payments should be presented to you. (From C.P.A. Examination.)
4. State how you would satisfy yourself that all outstanding liabilities of a business are properly taken up in the balance sheet. Point out what you would like to find by way of system that would simplify this task. How would you indicate on the balance sheet as of December 31:
 - (a) Preferred dividend (cumulative) due November 1 not declared.
 - (b) Ordinary dividend for the year, declared the following January 22.
 - (c) Ordinary dividend declared December 30, payable February 1? (From American Institute Examination.)

Chapter XIV

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

RESERVES

Nature of reserves—Main classes—Reserve for depreciation—Depreciation rates—Object of charging depreciation—Methods of figuring depreciation—Fixed percentage on original cost—Fixed percentage on diminishing values—Formula—Sinking fund method—Providing adequate depreciation reserves—Effect of excessive depreciation.

Reserve Accounts. Reserve accounts are not liabilities. They are ordinarily either valuation adjustments to assets or surplus reserves. So far as they are valuation adjustments, they should be deducted from the proper assets in the presentation of the balance sheet. Thus a reserve for doubtful accounts is merely a means of indicating by deduction the estimated real value of the Accounts Receivable. Some accountants prefer the term "provision" in place of "reserve," but from a standpoint of accuracy neither term is really descriptive of the nature of these accounts. They are in reality and in most instances valuation adjustment accounts. Thus, the so-called "reserve for depreciation" represents nothing more nor less than the estimated shrinkage through use of certain fixed assets, the shrinkage having been charged into operations as a current cost. The reserve for depreciation itself does not carry with it any reserve power to restore ultimately the wasting asset. The reserve merely shows the credit side of the shrinkage which has been charged into operations. The charge to operations and the consequent inclusion of that charge in the sales price is essential to the asset's final restoration.

The main classes of reserves encountered by the auditor are:

1. Valuation reserves, or reserves against asset valuation, such as: reserves for depreciation, depletion, and amortization; also reserves for bad and doubtful accounts, discounts;

reserve for cost to complete contracts; reserve for inventory valuations.

2. Appropriations of surplus for specific purposes.

Reserve for Depreciation. The Reserve for Depreciation is strictly an adjustment to estimated real value of property accounts and is, therefore, a valuation account and not a liability. It is of vital importance that the auditor pass carefully on the rates of depreciation used. Also, he must relate the amount of depreciation to the amount expended for repairs. It is very evident that an equipment well maintained and kept in good repair will outlive similar equipment which is not kept up. Repairs, of course, cannot cancel depreciation, but repairs do make depreciation normal. When, therefore, a machine is estimated to have a useful life of ten years, the presumption is that it will last ten years if kept in proper repair.

Sometimes it is difficult for an auditor unfamiliar with machine construction to pass proper judgment on depreciation rates. He must be guided, in that event, by his own experience, by the reports of engineers, by the past experiences of his client as reflected through the accounts, or by the estimates of appraisal companies if any are available. Again, an auditor must closely scrutinize the repair accounts, for he may find therein charges for renewals and replacements which will compensate for seemingly low depreciation rates.

The auditor should strive to obtain, as best he can, the most reliable statistics on the estimated life of the various types and classes of property of his client and from these should construct the depreciation rates and amounts which he deems ample to provide fully for the eventual rehabilitation of the properties. In a first audit this may mean a great deal of detail work. It may mean the establishment of a rate for each piece of property, equipment, and machinery, but after this work is all completed, a flat rate for each group of assets can readily be fixed for future use and for the benefit of the client. It should

always be borne in mind that depreciation is a purely estimated expense and yet, in order to reflect truly the financial position of a company or the results from operations, the estimate must be as closely accurate as possible. No time or trouble should be spared to make it so.

Fortunately the United States Government, a number of state public service commissions, and some of the large engineering firms have made quite exhaustive research on this subject. Some of their conclusions can be regarded as authoritative wherever normal conditions prevail. Rates of depreciation on various types of buildings and various classes of equipment and machinery, proposed by the above-mentioned authorities, are based upon quite thorough examinations and extensive experience.

The auditor often encounters strong opposition to his recommendations as to depreciation. Sometimes this opposition is fostered by a lean year as far as profits go, and at other times by an absolute lack of understanding of the nature of depreciation. In both cases one will find that the management does not regard depreciation as a current expense forming a part of operating costs which must be included before real profits are determined, but as an element outside of regular operations for which a portion of profits must be set aside. Viewed from this angle, if so-called "profits" are small, there is a strong temptation to disregard depreciation entirely. The real gist of such a condition is that because the management disregards this element of cost as a current operating expense, it is almost imperative that it be disregarded at the end of a fiscal year if a profit is to be shown.

In reality the status of small unreal profits or possibly an actual loss is brought about by the noninclusion of depreciation in current costs, thereby also excluding it from the sales price upon which the profit is based. The object of all business is to return to the proprietor, whether individual or corporate, all the expenses of con-

ducting a business, the costs of materials used or sold, the interest on borrowed capital, and a profit besides. There is only one way in which these outlays, expenses, and profits can be returned and that is through sales. Therefore, they must all be included in the sales price. If they are not and one is blinded to the fact that an expense like depreciation is a real expense, then usually the profit of a concern will be smaller by an amount equal to the depreciation omitted.

The sole object of charging depreciation currently into operations is the preservation of capital investment intact. Buildings, machinery, and operating equipment are all exhaustible. Their exhaustion through use is depreciation. Capital assets are therefore merely long-deferred charges to operation and do not differ in nature from other deferred charges; the only difference is one of time. To charge for the exhaustion of property currently, therefore, insures the necessary funds whereby the original investment in property may be fully restored. The inclusion of depreciation in costs and therefore in sales price, returns the capital in cash and thereby makes the replacement of properties possible.

The importance of charging depreciation into operations is always very evident to a bondholder or mortgagee. If funds are provided for the restoration of exhausted properties, and these funds are used from time to time for such restoration, the security behind a bond issue or mortgage remains unimpaired. If such provision is not made, the security may be worthless when the bonds become due, and no funds will be available to counteract the loss in value of the security. Where there are no bonds or mortgages, the stockholders suffer whenever depreciation is not considered. The net worth of the company will be decreased even if the books do not show it.

Methods of Figuring Depreciation. There are several

methods in use for figuring depreciation. The most common of these are:

1. The fixed percentage on original cost.
2. The fixed percentage on diminishing values.

Fixed Percentage on Original Cost. Under the first method, the estimated life of the property is determined, the scrap or residual value deducted from the cost, and the remainder divided by the number of years the property is expected to last. Thus, if a machine costing \$100.00 with a scrap value of \$10.00 will last ten years, one-tenth, or 10 per cent of \$90.00, will be charged each year to depreciation.

Fixed Percentage on Diminishing Values. The second method is based on the assumption that repairs to property increase with its age and that, therefore, to equalize the entire upkeep charges, the earlier years should bear the heaviest depreciation, the repairs being very light during those years. This assumption would be correct if a piece of property or a machine were permitted to waste away naturally. In reality, however, replacements and restoration are not delayed until final decay. Properties are being rebuilt and machine parts replaced constantly, so that repairs may be no larger the last year than the first. In fact, the property may have been entirely restored at the end of its originally estimated life. Restoration and replacement must be current in order to make machinery and buildings efficient. If they were permitted to depreciate and the reserve for depreciation were not drawn upon until the estimated life had been ended, the plant or factory would probably be working at about 30 per cent efficiency or less for a number of years.

Advantages of Each Method. The fixed percentage on original cost method is therefore probably more effective than any other, especially in view of the fact that repairs do not necessarily increase with the age of equipment,

since in practice restorations and replacements being made constantly tend to equalize repairs. The added advantage of this method is its simplicity, which is especially noticeable in connection with detailed cost systems where it is important not to change rates frequently merely for some theoretical consideration.

The fixed percentage on diminishing value method is, however, a fairly simple method. It places the heaviest amount of depreciation on the early years, the assumption being as heretofore indicated that repairs increase from year to year and that therefore the sum of depreciation and repair charges each year will be fairly constant. From a mathematical standpoint there are no difficulties in applying this method. It is necessary only to find the rate which, when applied against each diminished balance at the end of a fiscal period, will write off the asset during its estimated life.

Formula for Diminishing Value Method. The formula is as follows:

$$x = 1 - \sqrt[n]{\frac{a'}{a}}$$

a' = the salvage value

a = the total cost

n = the life in years

x = the percentage required

Thus, for an equipment costing \$243.00 with a salvage value of \$32.00 and an estimated life of five years, we would have

$$x = 1 - \sqrt[5]{\frac{32}{243}}, \text{ or } 1 - \frac{2}{3} = \frac{1}{3}, \text{ or } 33\frac{1}{3} \text{ per cent}$$

This rate applied to the original cost, \$243.00, would give the following amounts of depreciation each year:

First year	33 $\frac{1}{3}$ per cent of \$243.00	= \$81.00
Second "	" " " " "	162.00 = 54.00
Third "	" " " " "	108.00 = 36.00
Fourth "	" " " " "	72.00 = 24.00
Fifth "	" " " " "	48.00 = 16.00
Total depreciation		\$211.00
Salvage value		32.00
Total Cost		<u>\$243.00</u>

Sinking Fund Method. There are two other methods of figuring depreciation, namely, the sinking-fund and the annuity methods. These are rarely used. According to the sinking-fund method a certain amount of money is set aside periodically to accumulate at compound interest. This fund, it is assumed, will at the expiration of a certain time grow to a size sufficient to replace the equipment. The annuity method fixes the annual depreciation by determining a sum which, when taken annually from the investment balance of the previous year and increased by the interest rate on the investment, will entirely eliminate the asset during its estimated life, and which will at the same time provide the full amount of interest return on the investment at its annual decreased value.

Providing Adequate Depreciation Reserves. Whatever method of depreciation is used by a client, the auditor's duty is to satisfy himself that the amounts written off are adequate and that the practice is consistent and constant. He must also be sure that the depreciation is ample to cover possible obsolescence. In some companies the obsolescence feature is a pronounced one. Whether in such cases the reserve for depreciation is sufficient to cover obsolescence besides, can as a rule be determined by the charges to the depreciation reserve for equipment scrapped or sold, and by an investigation of the depreciation rates for each type of equipment.

It is a wise policy in any concern to make all depreciation rates somewhat higher than normal in order that the extra reserve thus created on all equipment may be utilized for the obsolescence of individual types of equipment. Where obsolescence is not or cannot be provided for out of regular operations, it is the duty of the auditor to investigate very thoroughly the property accounts and, if necessary, the equipment itself in order to exclude all obsolete property from the accounts.

Emphasis has so far been placed on providing adequate reserves for depreciation, so that the balance sheet may reflect actual financial position and the profit and loss statement proper results from operations.

Effect of Excessive Depreciation. The auditor, however, should emphasize just as strongly that depreciation provisions grossly in excess of adequacy create a secret reserve, a misstatement of operations, and a perverted balance sheet. The result is expressed in an incorrect value (book value) of net worth which might actually lead a stockholder to sell his shares at less than their real value. In fact, "the excessive depreciation method" of routing out small stockholders has already been used too often.

Though the public accountant is not a guardian of public morals, the ethics of his profession should lead him to condemn sharp business practices injurious to the public or the investor. An auditor engaged to examine the books of a corporation should bear in mind that his report is for the benefit of the entire corporation, including the stockholder, and that the latter's interests must be safeguarded. If his comments as to excessive depreciation are to be of any use, they should be made in footnote form on his balance-sheet certificate as well as in the text of his report. If given merely in the text, the chances are that the stockholder will not see them; but being made part and parcel of his certificate, which must be used in unabridged form or else be grossly misrepre-

sented, such comments will surely attract every stockholder's attention.

TEST YOURSELF ON ESSENTIAL POINTS

1. What are reserves and how are they ordinarily classified?
2. What special considerations would influence you in fixing the rate of depreciation chargeable on:
 - (a) Buildings.
 - (b) Machinery.
 - (c) Tools and fixtures.
 - (d) Patterns. (From C.P.A. Examination.)
3. It is agreed by the directors of a manufacturing company that certain depreciation should be allowed, but that it is desirable to let the plant accounts stand on the books at cost value. How would you as auditor manage to meet the situation? (From C.P.A. Examination.)
4. Explain the relationship between a sinking fund and an allowance for depreciation. It is claimed that in municipal enterprises the requirements that rates must be high enough to provide for a sinking fund to pay off the bonds and also for a reserve for depreciation with which to replace the plant results in a double charge to consumers. Criticize or explain this theory. (From American Institute Examination.)
5. The balance in Machinery Depreciation Account shows an increase for the year of the amount provided out of income, which is computed at the rate of 4 per cent on the balance of the Machinery Account at the commencement of the year. The method of keeping the Machinery and the Machinery Depreciation accounts has been in force from the commencement of operations. Draft your comments as auditor of these accounts, assuming that no item other than those above mentioned call for any comments. (From American Institute Examination.)

Chapter XV
AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

RESERVES

Verifying the adequacy of reserve for bad and doubtful accounts—Percentage to sales method—Surplus reserves—Sinking fund reserve for depreciation—Reserve for sinking fund—Reserve for anticipated discounts—Secret reserves—Methods of creating secret reserves.

Reserve for Bad and Doubtful Accounts. Irrespective of the mode of its construction, there is only one way in which the auditor can properly verify the adequacy of the Reserve for Bad and Doubtful Accounts, and that is by an analysis and valuation of the receivables at the end of the period under audit. He must schedule the accounts as to their age, consult the correspondence files of the collection department, examine the customers' habits of payment, and look up the reports of credit agencies. It will also be necessary to refer to the correspondence with attorneys or collection agencies for any accounts in suit.

The essence of the entire examination is to determine the cash value of the account at a specific date. This is after all a process of inventory and the difference between such an inventory and the book values of the receivables should be the amount of the reserve. Some of the details in connection with scheduling the receivables for purposes of creating a reserve for doubtful accounts have already been discussed heretofore in connection with Accounts Receivable.

It seems that in every business losses from bad accounts must occur, so that in reality these losses must be considered as an expense of the business. The extent of the losses is almost solely dependent upon the activity and ability of the credit and collection department.

Percentage to Sales Method. If losses from receivables are viewed as a necessary expense of doing business, then

it seems that the best method of providing a reserve would be by current charges against revenue. In fact, many concerns have adopted this plan. They charge a certain percentage of their monthly sales into Bad Debts Account and credit Reserve for Bad and Doubtful Accounts. The percentage used is based upon the past experience of the company. The per cent of actual losses to total sales for a number of years is determined, and the per cent is then applied to current sales, thus making provision through operations for the anticipated losses on current sales.

This method is an excellent one but, of course, the adequacy of the reserve thereby created must stand the valuation test just described. It is the auditor's duty to apply the test because, after all, the percentage to sales reserve is constructed under the assumption that current conditions of extending credit have not varied from past conditions on which the percentage is based.

The reserve constructed on the percentage-to-sales method is much better than the method of creating a reserve annually, for it brings before the management an expense or loss which ought to be considered in current monthly operations and price making. It is one of the necessary evils of business and should be based on the income account against which the eventual loss is a charge, that is, the Sales Account. To wait until the end of a fiscal period for the creation of the reserve on a valuation basis means two things—first, a great deal of detailed analysis of the Accounts Receivable, and second, the temptation to minimize the amount of uncollectibles, either to help keep the profits up in lean years or to maintain the standing of the credit and collection department. The percentage-to-sales method, being based upon actual losses in relation to sales, eliminates the personal interests and removes the need for estimating collectibility except as a test.

Surplus Reserves. As a rule, reserves which are not

valuation adjustments form part of the Surplus Account or the net worth of an organization. They are in that sense not reserves at all but specially appropriated surplus. When carried separately on the balance sheet, they should, therefore, appear in the net-worth division. Thus a reserve for working capital consists of a portion of surplus which it is intended shall not be distributed as dividends but is to be used in the business. But even though such a reserve be set up, this action would not prevent the directors from distributing the reserve as a dividend if conditions later showed that the reserve was not needed for the purposes originally in mind.

Premiums received on capital stock sold do not constitute a reserve. There is no liability or adjustment to asset accounts. Such premiums may be accounted for in a special Surplus Account. They should under no condition be credited to the general Surplus Account.

Sinking Fund Reserve for Depreciation. A reserve created for sinking-fund requirements to cover depreciation cannot possibly be a liability. Such a reserve would merely show that the amounts stipulated by the trust indenture had been provided for out of operations. In the balance sheet the reserve would be deducted from the asset. A Sinking-Fund Reserve Account for depreciation would in this way show, by deduction from the proper account, the actual value of the property. The sinking fund (cash or securities) itself would be included in the assets and would either equal or exceed the amount of reserves deducted from the property accounts. After the provisions of the depreciation sinking fund are entirely satisfied, the reserve account will be closed into surplus since the sinking fund itself, if used as provided, will restore all the property to the original values. As long as the fund is actually set aside the reserve is really a deferred profit, which, however, from conservative motives is specially set up to show the status of the property, and which is carried as a reserve until the sinking

fund is actually used as intended. Thereafter the reserve may be carried into surplus and distributed as dividends.

Reserve for Sinking Fund. Sinking funds created to retire bond issues are at times also offset by reserves created as a charge against earnings. This is an unusual but sound practice since it prevents the declaration of unreasonable dividends before the bonds are all retired. It is a protection to the bondholder, although the amounts so reserved will eventually represent surplus available for dividends to the stockholders and in that sense constitute a deferred surplus account and form part of the net worth of the company.

Reserve for Anticipated Discounts. There are, however, a number of special reserve accounts which are adjustments to asset accounts. Such are, for example, reserves for anticipated discounts on accounts receivable. Though the amount of such discounts cannot be positively determined, the past experience of a client should form the basis of the auditor's judgment in passing on the adequacy of such a reserve. It is hardly necessary for an auditor to set up this reserve if it is not the custom of his client to do so. In fact, it is questionable whether discounts of this nature are chargeable against the period in which the sale was made. The discount is an inducement made by the seller to secure funds, and in that sense is really a charge against the financial division of a business when the discount is actually taken and the funds received. The discounts here discussed are cash discounts and not trade discounts. Trade discounts, as a rule, are not included in the charge to customers. If they are, then the auditor must deduct them from the Accounts Receivable and the Sales.

Reserves may be created for contingencies where the chances are strong that these contingencies will eventually become actual liabilities. Thus a reserve for legal expense may be constructed in connection with patent

infringement or damage suits, because as a rule the exact amount of legal expense cannot be determined. Again, a certain concern may wish to set up a reserve for royalties in case of uncertainty as to the patent rights of others, the concern itself not being sure whether it is infringing or not.

Secret Reserves. Secret reserves are known as "secret" because they never appear on the books. In reality they are not reserves at all, but represent unrevealed financial strength or net worth. They are created either intentionally or unintentionally. When created intentionally, the management of a company does so from one of two motives—one fraudulent, the other guided by motives of conservatism.

If assets are intentionally omitted from a company's balance sheet or expenses are charged into operation in excess of requirements (such as excessive depreciation) for the purpose of discouraging small stockholders to the extent of making them sell their holdings on the basis of a fictitious net worth, such actions are obviously fraudulent and dishonest and an auditor should disclose them fully in his report or certificate. However, a secret reserve may be created intentionally without any attempt to defraud the stockholders. Excessive depreciation may be written off during very prosperous years in order to equalize earnings, it being the practice to write off small amounts or no depreciation at all in the lean years. This legitimate practice makes for uniform net profits each year.

Secret reserves are being unintentionally or unconsciously created almost constantly in the vast majority of business enterprises. The growth of a firm's goodwill and the increases in values of real estate are typical. Such values are not reflected on the books, but are nevertheless quite real and become actual whenever the business is offered for sale. Such secret reserves, if they may be called such, need not be discussed by the auditor, as

they are part and parcel of every business that is prosperous and favorably located.

Intentionally created secret reserves are constructed most commonly in the following ways:

1. By charging off excessive depreciation—or by writing off certain assets entirely—and by the creation of excessive bad debt reserves. This may be done out of motives of conservatism, in order to discourage small stockholders, or to avoid taxation of income.
2. By the reduction in values of inventories beyond the "cost or market" rule. This method is generally employed to deceive, because a reduction here would be hard to detect. The auditor can verify inventory valuations by referring to the purchase invoices and to the cost and production records for valuations of goods in process and finished goods. If the reduction is produced by the omission of quantities, he should apply his inventory tests as to quantities. This can be done by using the sales and purchase records or a combination of these with production records in a manufacturing plant, limiting this test to quantities exclusively. This matter has been fully covered under the caption of Inventories.
3. By charging plant additions or inventoriable items to expense accounts. A thorough analysis of the expense accounts will reveal the extent of this practice and will furnish the material for adjusting the accounts accordingly.
4. By writing off into operations intangible assets like goodwill paid for in capital stock or cash, when in reality such assets in no way affect operations. If it is deemed expedient to write off goodwill, then the net profits from operations should first be clearly shown and the deduction for goodwill shown as an extraordinary item, or the charge may be direct to surplus. In this way, every stockholder can see the actual profits of a period and not be deceived.
5. By merging or hiding certain assets with or under other assets to which they are not related.

The auditor's attitude on the question of secret reserves should be decided and positive. Wherever such reserves are found, he must comment fully on their nature in his report or, where his balance sheet certificate only is to be used for publication or before stockholders' meetings, he should qualify the certificate to show that

the assets are undervalued, that certain reserves are excessive, or that some assets have been entirely omitted. If, of course, the auditor's report is not used nor his certificate published or presented, nothing can be done to inform the stockholders of the true state of affairs. But if the auditor has reported his findings and has qualified his certificate, he has done his full duty and no responsibility as to misrepresentation of facts could be placed on him. In fact, if the management of a company presented a balance sheet to its stockholders omitting the auditor's qualifications, and yet claimed that the balance sheet was the auditor's balance sheet, legal recourse could be had by the auditor against such representation. His standing as a public accountant might be injured thereby even though no damage were done to stockholders or creditors. If the latter were injured, then the auditor would be considered liable and the measure of damage done by the client might be even greater.

TEST YOURSELF ON ESSENTIAL POINTS

1. How may the auditor assure himself in a general way of the adequacy of the reserve for bad and doubtful accounts without a detailed analysis of customers' accounts to ascertain the age of the charges appearing therein?
2. If on a second audit, made a year after the first one, you find that many of the same items of bad and doubtful debts to which you drew attention at the earlier date still remain unchanged, what action would you take? (From C.P.A. Examination.)
3. How should an auditor undertake to verify bad debts written off? (From C.P.A. Examination.)
4. How should a reserve for cash discounts on outstanding accounts receivable be computed? When would you advise setting up such a reserve? (From C.P.A. Examination.)
5. It is customary with some concerns to carry secret reserves. State your views respecting that custom. (From C.P.A. Examination.)
6. Distinguish between valuation reserves and surplus reserves and give at least three examples of surplus reserves.

Chapter XVI

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

FIXED LIABILITIES

Kinds of fixed liabilities—Mortgages—Bonds—Procedure in verification—Coupon and registered bonds—Retirement of bonds—Sinking-fund requirements for serial retirements—Interest on sinking funds—Bond retirement through annuity principle—Application of formula—Miscellaneous liens.

Fixed liabilities are, as a rule, liabilities against fixed assets, and vary from current liabilities in that they are not payable immediately but after a considerable lapse of time as evidenced by some sort of contract, lien, deed of trust, or mortgage. They are "fixed" not only in the sense of being long-time obligations connected with certain fixed assets, but they are fixed because due on a specific date at some future time. The term "fixed," however, means primarily that the liability is a more or less permanent one as distinguished from the changeable character and amounts of the current liabilities.

Under fixed liabilities we generally find the following:

1. Mortgages.
2. Bonds.
3. Miscellaneous liens.

Mortgages. Mortgages are of two kinds—those secured by real estate (land or land and buildings) and those secured by chattels or personal property. The auditor rarely encounters the latter kind except in concerns suffering from temporary or permanent financial straits. Unless the power to mortgage a company's property, whether real or personal, is specifically denied to the board of directors by the by-laws or by state legislation, the latter body possesses the prerogative to impose these obligations upon a corporation.

The auditor's first duty in connection with mortgages is to secure copies of the mortgages themselves and from them to tabulate the amounts due, the dates due, the

rates of interest, and a description of the properties hypothecated. He must then assure himself that the holder has recorded the mortgage by reference to the files of the county records, that all interest has been paid as stipulated, and that the books show the accrued interest, if any. Unpaid interest on mortgages is an additional lien on the property. It is important that the mortgage contract be read in full, as there may be provisions therein which call for certain performances on the part of the mortgagor. It is the auditor's duty to satisfy himself that such provisions have been fully complied with.

The object of mortgaging property should be determined. Property may be mortgaged as a means of securing funds for enlargement of business activities, for construction purposes, or because a company's finances are weak. The auditor must also make certain that the indebtedness is offset by value received and that the mortgage is not given to an officer for services or to some favored creditor to the damage of other creditors. Of course, an auditor cannot prevent such action, but he can make his report and certificate so lucid on the point that any creditor or stockholder reading either will suffer no misapprehension as to the status of the mortgage. And, in any event, if a mortgage be made in favor of an officer, the auditor should make sure that the services were actually performed and that they do not represent an arbitrary estimate made merely to give a large stockholder an added security to protect his investment. The courts would probably hold any act of this kind illegal and a misapplication of funds, especially if there should be any hint as to insolvency.

Bonds. An issue of bonds secured by real estate is merely ancillary to a mortgage and, because the bonds may be of small or medium denominations, provides a more ready means of securing funds. A mortgage alone presupposes the obtaining of funds from one individual or corporation, whereas bonds secured by a mortgage can

be sold to many individuals who could not as separate individuals furnish funds to the full extent of the mortgage. However, where a firm is not well known it is quite difficult to dispose of an entire bond issue, so that the straight mortgage plan of financing is probably preferable.

In verifying the Bond Account, the auditor must read both the mortgage and the bond, or copies thereof, very carefully. The wording on the bond is generally fixed in the mortgage and the mortgage or trust indenture will also cover all matters as to redemption or sinking fund provisions, payment or deposit of interest installments, and the nature and extent of the security. It is always necessary for the auditor to know what properties have been hypothecated so that a knowledge may be had of the properties that are free from lien. In constructing the balance sheet the unincumbered property should be separately stated in order to reflect additional borrowing power. It is also important for the auditor to note whether the bonds are a first lien on certain assets and a second lien on other property, and whether the security is ample in either case as required by the trust indenture.

Special clauses are often found in trust indentures, and it is the auditor's duty to comment upon whether or not the provisions have been fully met. For example, a trust deed may stipulate that the net quick assets must at all times be in excess of the total amount of the bond issue or that, when the profits exceed a certain figure, a certain percentage thereof must be set aside in a fund for bond redemption over and above the amounts which may be regularly required for sinking fund provisions. The corporation must comply with all these stipulations and the auditor must comment in his report as to whether it has or has not been done.

Bonds are of two kinds, coupon and registered. The interest on registered bonds is paid to the specified holder, as indicated by the registrar's file, either by the com-

pany's or maker's check, or by the trustee with whom the interest may be deposited. The interest on coupon bonds is payable to bearer, and is as a rule payable through the office of the trustee with whom the full amount of an interest installment must be deposited.

The bonds outstanding, that is the liability, may be verified in a number of ways. In the first place, it may be assumed that bonds are sold for cash or some equivalent. The bonds outstanding can, therefore, be verified from the cash-receipts record, or if some were issued for property or other assets the journal should yield the requisite information. Again, the outstanding bonds may be verified by an inspection of those unissued, it being assumed that any not on hand must be outstanding or if not outstanding they may be out as collateral. In the latter case they should be considered as issued, but also as the property or investment of the company.

A further verification of the bonds outstanding may be had through the interest coupons if they have all been returned. The canceled and paid coupons (as further established from the cash book) will indicate the amount of principal on which the interest was paid. The interest coupons on unissued bonds would be clipped by the company itself and would, therefore, not appear in the cash transactions. These coupons must, of course, be deposited with the trustee with the deposit of the interest installments so that the sum of the two will represent the interest due on the entire bond issue. Therefore, the trustee's receipt will afford a further means of verifying not only the interest paid but the bonds outstanding as well.

In the case of registered bonds, the registrar's records, or his certificate, will establish the outstanding bonds, provided all holders have registered; or the interest payments evidenced by the company's own canceled checks will suffice if the auditor bears in mind at all times that not only one of the advocated methods is to be used but,

if necessary, all of them, in order to establish the liability for outstanding bonds, accrued interest thereon, or the interest payments themselves. A final proof of outstanding coupon bonds is the certificate of the trustee, which should be obtained by the auditor.

The recorded mortgage, a lien in the eyes of the law, remains as an encumbrance on the property in its original amount, even though payments have been made on it, unless the payments are also recorded. If, therefore, payments appear in the client's books, the auditor should see whether they have been recorded and the lien of record reduced thereby. If such payments are not recorded, the lien of record, as originally established, should be shown on the balance sheet and the payments made shown as a deduction with the explanation that they were not recorded. Redeemed bonds should be carefully inspected to see that they have been properly canceled. The value of bonds redeemed should also be recorded as a reduction of the lien of record which, of course, is the mortgage securing the total bond issue.

Retirement of Bonds. Bonds may be retired in two ways:

1. All at one specific date called the maturity date.
2. At different dates in so-called series, each series representing a portion of the total issue.

For example, a bond issue dated January 1, 1924, of \$100,000.00, might all be retireable January 1, 1934, which would be illustrative of the first method or the \$100,000.00 might be payable as follows:

January 1, 1930,	\$20,000.00
January 1, 1931,	20,000.00
January 1, 1932,	20,000.00
January 1, 1933,	20,000.00
January 1, 1934,	20,000.00

that is, in series of \$20,000.00 each.

Whenever bonds are all to be retired at one specific date, provisions are generally made in the trust in-

denture for annual deposits with the trustee of equal amounts over a period of years sufficient to thereby build up the principal amount. These deposits on short-term issues generally start shortly after the bonds have been issued, whereas on long-term issues a considerable number of years may elapse before deposits to a sinking fund are required. Thus, in a five-year issue of \$100,000.00, the requirement may call for a deposit of \$20,000.00 at the end of the first year and of each succeeding year until the entire \$100,000.00 has been accumulated. In a long-term issue, of say twenty years, no deposits may be required at all for the first ten years, the deposits of equal amount to begin with the eleventh year. Again on short-term issues, so that the concern being financed may have a larger use of funds during the first several years of an issue, it may be arranged that the deposits start with a relatively small amount and increase year by year. Thus, in a five-year bond issue of \$100,000.00, the sinking-fund requirements may call for an arrangement like the following:

Deposits	Amount
First Year	\$ 10,000.00
Second Year	15,000.00
Third Year	20,000.00
Fourth Year	25,000.00
Fifth Year	30,000.00
Total	<u>\$100,000.00</u>

Sinking-Fund Requirements for Serial Retirements.

Where bonds are to be retired in series or lots, the matter of sinking-fund requirements may be somewhat more complicated. Assume for example, a bond issue of \$100,000.00, dated January 1, 1924, to be retired as follows:

January 1, 1925.....	\$ 20,000.00
January 1, 1926.....	20,000.00
January 1, 1927.....	20,000.00
January 1, 1928.....	20,000.00
January 1, 1929.....	20,000.00
Total	<u>\$100,000.00</u>

Ordinarily, under such an arrangement, the trust indenture might call for a deposit of \$20,000.00 each year to meet the particular bonds due each year. This might be the plan under the assumption that the holders of the later series would feel safe because every previous retirement would increase their security. But where serial retirement exists, it is often common to demand pro rata annual deposits to take care of the maturity of all the series. Under such a plan it would not suffice to set aside \$20,000.00 each year, but provision would have to be made from the very first year and through the years for the retirement of the last series, the fourth series, etc. The following table will illustrate the method of depositing in the sinking fund:

AMOUNTS PLACED IN SINKING FUND					
On Bonds Due	First Year	Second Year	Third Year	Fourth Year	Fifth Year
Jan. 1, 1925..	\$20,000.00				
Jan. 1, 1926..	10,000.00	\$10,000.00			
Jan. 1, 1927..	6,666.67	6,666.67	\$ 6,666.66		
Jan. 1, 1928..	5,000.00	5,000.00	5,000.00	\$5,000.00	
Jan. 1, 1929..	4,000.00	4,000.00	4,000.00	4,000.00	\$4,000.00
Totals....	\$45,666.67	\$25,666.67	\$15,666.66	\$9,000.00	\$4,000.00
					<u>\$100,000.00</u>

From this table it will be seen that not only the \$20,000.00 of bonds to be retired at the end of the first year must be placed in the sinking fund at the end of the first year, but that, in addition, there must be deposited one-half of the amount required for the second year, one-third of the amount required for the third year, and so on, through the five series.

A financing plan through bonds with retirement and sinking-fund requirements, as just illustrated, would be a very poor plan indeed because a deposit of over 45 per cent of the entire bond issue would be required at the end of the first year. Unless the first year for sinking-fund deposits were therefore deferred for quite a number of years after the issue of the bonds, the concern issuing the bonds would have a relatively small amount of funds to work with during a period when these funds would presumably be most useful. This hardship would be

considerably reduced in its effects if the series represented gradually increasing amounts starting with a small sum, and if the series were separated by a number of years. If, for example, the series and dates of retirement were as follows, the sinking-fund requirements would not be as harsh:

Retirement Date	Amount
January 1, 1927.....	\$ 10,000.00
January 1, 1930.....	15,000.00
January 1, 1933.....	20,000.00
January 1, 1936.....	25,000.00
January 1, 1939.....	30,000.00
Total	<u>\$100,000.00</u>

Assuming that the bonds were dated and issued January 1, 1924, our table of sinking-fund deposits would be as follows (Deposits to begin on an annual basis January 1, 1927):

Date of Deposits	Series Due on—					Total
	Jan. 1, 1927	Jan. 1, 1930	Jan. 1, 1933	Jan. 1, 1936	Jan. 1, 1939	
Jan. 1, 1927,	\$10,000.00	\$ 3,750.00	\$ 2,857.14	\$ 2,500.00	\$ 2,307.69	\$ 21,414.83
Jan. 1, 1928,		3,750.00	2,857.14	2,500.00	2,307.69	11,414.83
Jan. 1, 1929,		3,750.00	2,857.14	2,500.00	2,307.69	11,414.83
Jan. 1, 1930,		3,750.00	2,857.14	2,500.00	2,307.69	11,414.83
Jan. 1, 1931,			2,857.14	2,500.00	2,307.69	7,664.83
Jan. 1, 1932,			2,857.15	2,500.00	2,307.69	7,664.84
Jan. 1, 1933,			2,857.15	2,500.00	2,307.69	7,664.84
Jan. 1, 1934,				2,500.00	2,307.69	4,807.69
Jan. 1, 1935,				2,500.00	2,307.69	4,807.69
Jan. 1, 1936,				2,500.00	2,307.69	4,807.69
Jan. 1, 1937,					2,307.70	2,307.70
Jan. 1, 1938,					2,307.70	2,307.70
Jan. 1, 1939,					2,307.70	2,307.70
	<u>\$10,000.00</u>	<u>\$15,000.00</u>	<u>\$20,000.00</u>	<u>\$25,000.00</u>	<u>\$30,000.00</u>	<u>\$100,000.00</u>

A somewhat new but yet quite popular plan of building up sinking funds, for purposes of bond retirement, is the so-called production-unit method. Under this plan the sinking-fund provisions of the trust indenture would provide that for every unit of production a given amount be placed in the sinking fund. This plan is particularly applicable to the extractive industries. Thus, a coal-mining company would, if this plan were in use, put into a sinking fund a certain amount for every ton of coal produced or sold. As the bond issue would be secured

by the depletable resources, the sinking-fund creation process would parallel the depletion account.

Interest on Sinking Funds. Sinking funds for bond retirement should naturally be invested in sound securities, or so deposited that a fair interest may be earned thereon. If interest is to be earned in this way, one can readily see that the accumulated interest at any time could be applied to reduce the amount of the next deposit to the sinking fund. If the interest were compounded semi-annually through reinvestment, the process of building up the sinking fund would be further enhanced.

Assume a bond issue of \$50,000.00 to be retired in five years, equal annual installments to be made to the sinking fund. The following table will illustrate the effect of interest earned on the amounts to be deposited in the sinking fund:

	Interest	Principal
Deposit at end of first year.....		\$10,000.00
Interest on \$10,000.00 for 6 months @ 5%....	\$ 250.00	250.00
Fund at end of 1½ years.....		<u>\$10,250.00</u>
Interest on \$10,250.00 for 6 months @ 5%....	256.25	256.25
Deposit at end of second year.....		<u>9,493.75</u>
Amount in sinking fund end of second year....		<u>\$20,000.00</u>
Interest on \$20,000.00 for 6 months @ 5%....	500.00	500.00
Fund at end of 2½ years.....		<u>\$20,500.00</u>
Interest on \$20,500.00 for 6 months @ 5%....	512.50	512.50
Deposit at end of third year.....		<u>8,987.50</u>
Amount in sinking fund end of third year....		<u>\$30,000.00</u>
Interest on \$30,000.00 for 6 months @ 5%....	750.00	750.00
Fund at end of 3½ years.....		<u>\$30,750.00</u>
Interest on \$30,750.00 for 6 months @ 5%....	768.75	768.75
Deposit at end of fourth year.....		<u>8,481.25</u>
Amount in sinking fund end of fourth year....		<u>\$40,000.00</u>
Interest on \$40,000.00 for 6 months @ 5%....	1,000.00	1,000.00
Fund at end of 4½ years.....		<u>\$41,000.00</u>
Interest on \$41,000.00 for 6 months.....	1,025.00	1,025.00
Deposit at end of fifth year.....		<u>7,975.00</u>
Fund at end of fifth year.....	<u>\$5,062.50</u>	<u>\$50,000.00</u>

It will be seen from the foregoing tabulation that of the \$50,000.00 accumulated in the sinking fund, \$5,062.50 represents interest earned on the deposits at a 5 per cent rate compounded semiannually. It is also apparent that because of the interest accumulation, the amounts placed in the sinking fund decreased each year (first year \$10,000.00, last year \$7,975.00).

The question naturally arises: It is not possible to find a method whereby exactly equal amounts deposited each year, and earning 5 per cent interest compounded periodically, will produce the same final result? If such a method exists, it will then not be necessary to deposit a larger amount the first year than in the succeeding years, thus providing for a somewhat larger use of funds, arising from the bond sales when most needed.

Bond Retirement through Annuity Principle. Sinking funds may be built upon the annuity principle. An annuity is merely a series of equal payments, made either annually or at more frequent regular intervals. Naturally, the interest rate, the compounding of the interest, and the term of years must all receive consideration. Under ordinary annuities, payments or installments are made at the end of the periods, which means that the last payment or deposit will not bear interest. In sinking-fund provisions, therefore, the method calls for periodical deposits at specified dates, the last deposit being made, as a rule, at maturity date.

Example. A company wishes to build up a sinking fund of \$30,000.00 in three years. If the interest on the deposits, beginning at the end of the first year, is at the rate of 5 per cent per annum, what must the annual deposits be?

In dealing with annuities, we always deal with some unit, and the unit is naturally of a money denomination, such as the dollar, the pound sterling, the franc, etc. In order to determine the annual contribution, which bears interest and which is made a certain number of times,

we need only to know the amount of an annuity of \$1.00 for the number of periods designated at a particular rate of interest and divide this into the amount of the sinking fund required. The amount of an annuity of \$1.00 for three years (or periods) at 5 per cent interest is \$3.1525, determined, naturally, as follows:

First installment (end of first year).....	\$1.00
Interest at 5 per cent (to end of second year)....	.05
	\$1.05
Second installment (end of second year).....	1.00
	\$2.05
Interest at 5 per cent (to end of third year)....	.1025
	\$2.1525
Third installment (end of third year).....	1.0000
Amount of annuity of \$1.00 for three years.....	\$3.1525

The sinking fund required in the problem is \$30,000.00; therefore, \$30,000.00 divided by \$3.1525 gives us \$9,516.26, the annual contribution required.

The proof is as follows:

First installment (end of first year).....	\$ 9,516.26
Interest at 5 per cent (to end of second year)....	475.81
	\$ 9,992.07
Second installment (end of second year).....	9,516.26
	\$19,508.33
Interest at 5 per cent (to end of third year)....	975.41
	\$20,483.74
Third installment (end of third year).....	9,516.26
Sinking-fund required	\$30,000.00

Formula for Sinking-Fund Installments. To illustrate the above process by formula we have:

$$A = S.F. \div (1+i)^3$$

"A" representing the periodical payment

"S.F." representing the sinking fund

"1" representing the dollar

"i" representing the rate of interest

"3" representing the number of periods

Substituting we have:

$$A = \$30,000 \div (1 + .05)^3 \text{ or}$$

$$A = \$30,000 \div 3.1525; \text{ that is}$$

$$A = \frac{\$30,000}{3.1525} \text{ or } \$9,516.26$$

In the above illustration, interest was added to the fund annually and, therefore, compounded on an annual basis. Quite often, however, interest is received semi-annually and therefore compounded semiannually. If compounded semiannually, it is apparent that the periodic contributions need not be as large as when interest is compounded annually. If interest, which is figured on an annual basis, is compounded semiannually, then the effective rate is higher than the nominal rate. A 5 per cent annual rate becomes a $2\frac{1}{2}$ per cent semiannual rate and the ratio of increase is 1.025 every half year, or $(1.025)^2$ for the year, and the effective interest rate becomes .050625. If .050625 is substituted for "i" in our formula, we can again determine the annuity from it, as follows:

$$A = \$30,000 \div (1 + .050625)^3 \text{ or}$$

$$A = \$30,000 \div 3.154438; \text{ that is}$$

$$A = \frac{\$30,000}{3.154438} \text{ or } \$9,510.41$$

The following is by way of proof:

Installment (end of first year).....	\$ 9,510.41
Interest at .050625 (to end of second year)...	481.47
	<u>\$ 9,991.88</u>
Installment (end of second year).....	9,510.41
	<u>\$19,502.29</u>
Interest at .050625 (to end of third year)....	987.30
	<u>\$20,489.59</u>
Installment (end of third year).....	9,510.41
Sinking fund required.....	<u>\$30,000.00</u>

Application of Formula. As indicated before, bonds are not necessarily retired all at one time. A bond issue of,

let us say, \$60,000.00, dated January 1, 1925, may be due as follows:

\$10,000.00 January 1, 1927.

20,000.00 January 1, 1928.

30,000.00 January 1, 1929.

The first sinking-fund contribution may be called for on January 1, 1926. Assuming that the contributions are to earn 5 per cent annually, what must the annual deposits be?

On January 1, 1926, the contribution or deposit must provide, not only for the retirement of the first series on January 1, 1927, but pro rata for the second and third series. To provide for the first series due January 1, 1927, two deposits must be made, namely, on January 1, 1926, and January 1, 1927, respectively. The problem to decide is "What two equal amounts together with interest at 5 per cent annually on the first amount will yield exactly \$10,000.00 on January 1, 1927?" The formula already presented is again applicable; that is:

$$\text{The contribution} = \frac{\text{Amount to be accumulated}}{\text{Amount of annuity of 1}} \\ \text{or}$$

$$\text{Contribution} = \frac{\$10,000}{2.05} \text{ or } \$4,878.05$$

(The denominator represents the number of contributions and the interest, which in this case is on the first contribution only.)

The following table will prove the above formula:

Deposit January 1, 1926 (for first series)...	\$ 4,878.05
Interest for one year at 5 per cent.....	243.90
	<u>\$5,121.95</u>
Deposit, January 1, 1927.....	4,878.05
Fund, January 1, 1927 (First series).....	<u>\$10,000.00</u>

On January 1, 1926, therefore, the pro rata provision for the first series, to be retired January 1, 1927, must be \$4,878.05, but, at the same time, more must be deposited on January 1, 1926, so as to include the pro rata amounts for the January 1, 1928, series and the 1929

series. The fund for the 1928 series may be provided through three annual deposits beginning, of course, January 1, 1926. By formula we have:

$$\text{Contributions} = \frac{\$20,000}{3.1525} \text{ or } \$6,344.17, \text{ and}$$

by way of proof, the following:

Deposit, January 1, 1926 (for second series) ..	\$ 6,344.17
Interest at 5 per cent to January 1, 1927...	317.21
	<u>\$6,661.38</u>
Deposit, January 1, 1927.....	6,344.17
	<u>\$13,005.55</u>
Interest at 5 per cent to January 1, 1928...	650.28
	<u>\$13,655.83</u>
Deposit, January 1, 1928.....	6,344.17
Fund January 1, 1928 (second series)	<u>\$20,000.00</u>

There still remains the third series of \$30,000.00, due January 1, 1929, for which provision must also be made beginning January 1, 1926. To retire this series, four deposits will be necessary, computed as follows:

$$\text{Contribution} = \frac{\$30,000}{4.310125} \text{ or } \$6,960.35$$

The following table will prove this computation:

Deposit, January 1, 1926 (for third series) ..	\$6,960.35
Interest at 5 per cent to January 1, 1927...	348.02
	<u>\$ 7,308.37</u>
Deposit, January 1, 1927.....	6,960.35
	<u>\$14,268.72</u>
Interest at 5 per cent to January 1, 1928....	713.44
	<u>\$14,982.16</u>
Deposit, January 1, 1928.....	6,960.35
	<u>\$21,942.51</u>
Interest at 5 per cent to January 1, 1929...	1,097.14
	<u>\$23,039.65</u>
Deposit, January 1, 1929.....	6,960.35
Fund January 1, 1929 (third series)	<u>\$30,000.00</u>

The following summary will illustrate the entire problem:

Year	Date of Deposits	Deposits for First Series	Deposits for Second Series	Deposits for Third Series	Total
First	Jan. 1, 1926...	\$ 4,878.05	\$ 6,344.17	\$ 6,960.35	\$18,182.57
Second	Jan. 1, 1927...	4,878.05	6,344.17	6,960.35	18,182.57
Third	Jan. 1, 1928...	.....	6,344.17	6,960.35	13,304.52
Fourth	Jan. 1, 1929...	.....	.....	6,960.35	6,960.35
		\$ 9,756.10	\$19,082.51	\$27,841.40	\$56,680.01
Interest, First Year		243.90	317.21	348.02	909.13
Interest, Second Year ....		.....	650.28	713.44	1,363.72
Interest, Third Year ....		.....	.....	1,097.14	1,097.14
To Be Retired.....		<u>\$10,000.00</u>	<u>\$20,000.00</u>	<u>\$30,000.00</u>	<u>\$60,000.00</u>

The matter of providing for bond retirement through the annuity principle or method has been explained in considerable detail, because the auditor should be thoroughly familiar with this method and the mathematical calculations which are called for. It is true that the annuity method is rarely used in connection with small issues of bonds, but where hundreds of thousands or millions may have to be placed into sinking funds periodically, the economy of the plan at once becomes apparent. If, for example, a sinking fund of \$3,000,000.00 had to be built up in three years, it would certainly be more advantageous to deposit \$951,625.69 at the end of the first year under the annuity method than \$1,000,000.00, because the use of \$48,374.31 could be thus secured at a time when such use would probably be of greatest value. The auditor may well point out these and other advantages of the annuity method of sinking-fund construction. He may also calculate for his client the advantages of various forms of retirement so that the burden of retirement provisions may be fairly distributed over the period of the bond issue, and so that the funds may be available in accordance with the varying needs of the concern.

Miscellaneous Liens. The auditor, while examining public records with reference to the recording of any mortgages or payments thereon, should also inspect these records for any other liens or mortgages that may still

appear as unsatisfied, even though the client may actually have liquidated the indebtedness. Then again such a search (which, of course, should not be too detailed) might reveal the existence of other liens not appearing on the client's books. There might be liens for unpaid taxes, mechanics' liens, or—more commonly—judgments. Any of these might or might not be discovered by a more or less formal search among the public records, so that the results of such a search would not necessarily be conclusive as to the existence of liens not recorded on the books.

As a rule, the auditor will rarely encounter any unsatisfied liens for unpaid taxes or for mechanics' liens, because these are generally cleared from the records when a company acquires the property to which they were originally attached. Judgments are more common, but their presence does not necessarily indicate any weakness on the part of a client. The client may have permitted a claim against him to be reduced to judgment because he disputed the claim and proposed to fight it. Nevertheless, even though the claim be a disputed one, the auditor should insist that a proper reserve be set up for it, or he should note the claim in a footnote on his balance sheet as a contingent liability.

In connection with liens generally, which may or may not appear on the books, the auditor should carefully peruse the minute book, if his client be a corporation, because in all probability, if there are any liens, they will be mentioned and their nature will be disclosed therein. Liens not disclosed in the minutes or by a conscientious search among public records cannot be discovered by the auditor unless, perhaps, he makes an extended investigation of the client's entire correspondence. This is hardly feasible except under extraordinary conditions or where there is a clear indication that the client is attempting to conceal facts about his business or his liabilities. Even in the latter case, the auditor may

not be able to gain access to the private files. He can, however, in a measure, cover himself in a trying case by qualifying his report to the effect that his findings are based on a limited use of the correspondence files and that he was denied access to certain other files, books, or documents.

DEFERRED CREDITS TO INCOME

Deferred credits to income represent unearned income, which should be presented on the balance sheet after the liabilities have been stated and just before the statement of net worth. They represent advance collections of income and should be transferred to Profit and Loss in the periods in which the income is earned. The following are items to be classified as deferred credits to income:

1. Advance receipts or billings of interest, royalties, rent, subscriptions, dues, etc.
2. Unrealized gross profits on installment sales.
3. Unredeemed tickets.
4. Premium on bonds unamortized.

The auditor should examine the income accounts to determine whether any advance receipts or billings of interest, rent, royalties, subscriptions, dues, etc., are included therein. The principal consideration in the verification of deferred credits is to determine whether income has been properly credited. The periods involved must be considered and the unearned portion computed accordingly.

Unrealized Gross Profit on Installment Sales. The unrealized gross profit on installment sales should be given special consideration by the auditor wherever he finds an installment business carried on. The growth of the installment business in recent years, and the special method of reporting income allowed such business by the U. S. Treasury Department, has made the matter of classification of prime importance. The Treasury ruling is as follows:

In the case of sales of personal property when substantial initial payments are made (more than 25 per cent of sale price), obligations of the purchasers need not be regarded as the equivalent of cash, if it is shown clearly that such obligations, even though represented by notes or other paper in negotiable form, can not be discounted or otherwise converted into cash without material loss because of lack of credit on the part of the buyer and the nature of the property involved. In such cases, profit may be reported as provided for sales on the installment plan.

The detailed procedure for handling installment sales so as to report the realized gross profit is explained in the following illustration:

Assume that the installment sales, collections, cost of sales, and unrealized gross profits are as follows:

	(1) Collections Year 1925	(2) Installment Sales Contracts (years 1924 and 1925)	(3) Cost of Goods Sold in Respective Years	(4) Unrealized Gross Profit on Install- ment Sales (2) less (3)	(5) Per Cent of Gross Profit Ratio of (4) to (2)
Applicable to Year 1924..	\$ 5,000.00	\$25,000.00	\$20,000.00	\$ 5,000.00	20%
Applicable to Year 1925..	10,000.00	60,000.00	45,000.00	15,000.00	25%
Totals...	<u>\$15,000.00</u>	<u>\$85,000.00</u>	<u>\$65,000.00</u>	<u>\$20,000.00</u>	

From the foregoing data we are to compute the realized profits. The Treasury ruling says that such profits should be computed by taking the same percentage of the cash collections made during the taxable year on account of installment sales contracts of either that or prior years, as the total unrealized profits on installment sales contracts for the year, against which the collection applies, bear to the total installment sales made during that respective year.

Applying the gross profit for each year to the collections applicable to the respective years, as shown in the foregoing data, we have:

Year 1924, 20 per cent of \$ 5,000..	\$1,000.00
Year 1925, 25 per cent of 10,000..	2,500.00
Realized Gross Profits.....	<u>3,500.00</u>

The following journal entries made monthly will properly provide for the unrealized gross profits on installment sales:

(1)

Installment Contracts Received . . .	\$.....	
Merchandise (Inventory at cost) . .		\$.....
Unrealized Gross Profit on Install- ment Sales . . . . .		.....
To record the installment sales made during the month of —		

(2)

Cash	\$.....	
Installment Contracts Received . . .		\$.....
To record the collections made during the month—		

(3)

Unrealized Gross Profit on Installment Sales	\$.....	
Realized Profits on Installment Sales		\$.....
To transfer the amount of realized profits based upon the per- centages of gross profits of each year to the collections for the month of —, which apply to the contracts of sales of the re- spective years as per schedule on file.		

With these entries the balance in the unrealized Gross Profit Account will always represent the unrealized profit, which should be stated as a deferred income item on the balance sheet.

Unredeemed Tickets. When a concern has issued tickets or coupons, the auditor may arrive at the approximate amount that is unredeemed by making tests and comparisons of the increases or decreases in the amounts shown by the accounts as outstanding with the amounts issued during the respective periods. It is important to verify the possession of the stock of unsold tickets or coupons on hand by physical inspection, as well as to account for those that have been redeemed.

Premium on Bonds. The premium received on the sale of a bond issue should be amortized over the life of the bond, so that a portion is earned each year. The same rules that govern the amortization of bond discount apply to the amortization of premiums on bonds.

All items of deferred credits should be carefully examined to determine their status as to whether they should be treated as a liability or unearned income.

TEST YOURSELF ON ESSENTIAL POINTS

1. In auditing a balance sheet, how would you ascertain the correctness of the item Mortgages? (From C.P.A. Examination.)
2. A company is organized in New York to lend money on real estate mortgages in Florida. What examination should an auditor make of such mortgages, and how would he guard against duplicate mortgages on the same property? (From C.P.A. Examination.)
3. Give in detail a method for verifying the payment of interest on coupons from bonds of a company you are auditing, and state how proof of such payments should be presented to you. (From C.P.A. Examination.)
4. In the case of bond issue of \$100,000.00, assume that it is to be retired at the rate of \$20,000.00 annually, beginning January 1, 1926. What would be the annual deposits to the sinking fund to take care of the maturity of all series?
5. State a formula to ascertain the periodical installments to the sinking fund.

Chapter XVII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

CAPITAL STOCK AND PROPRIETORSHIP

Kinds of proprietorship accounts—Capital of individual—Partners' capital—Capital of corporation—Verifying capital stock outstanding—Treasury stock—Surplus—Stock of no-par value—Nature of no-par stock—No-par value stock on balance sheet—Dividends on no-par stock—Profit and Loss account.

The Capital Stock Account is not a liability, it is an indication of proprietorship. It cannot be considered a liability even in case a company goes out of business voluntarily or as a bankrupt. It then is, as before, a proprietorship account, and provides the basis for distributing the assets of a company which remain after all liabilities have been paid.

Proprietorship Accounts. Proprietorship accounts correspond to the following forms of organization:

Individual proprietorships.
Partnerships.
Corporations.

The accounts indicating proprietorship in any and all these forms of organization are the same in essence and nature. They vary merely as to divisibility and transferability.

Capital of Individual Proprietor. An individual proprietor finances himself by utilizing his own funds or credit, and the entire investment and the profits therefrom are his own. He is, therefore, fully responsible as an individual for all his acts and all his liabilities. If, through unfortunate business operations, his funds invested in the business itself are insufficient to satisfy his creditors, his other personal assets, beyond his legal exemptions, may be drawn upon. This feature has a strong element of justice in it, for his personal estate is very often built up out of the profits he withdraws from his business. Had these profits been retained in his business, sufficient

funds would probably have been there available to liquidate his obligations to business creditors.

These considerations are of equal weight in connection with partnerships, except that in a partnership the responsibility is generally divided. Though a corporation exhibits a status of limited liability on the part of the individual stockholders, it is, nevertheless, somewhat restricted in its activities and in the distribution of its earnings. Thus to all intents and purposes, provided the management is honest, very considerable safeguards are provided for the creditor.

Again, if certain acts of corporate officials are proved irregular or *ultra vires*, recourse may be had against such officials, against the board of directors, or in some instances even against the individual stockholders. The activities of the individual proprietor and of the partnership are not so closely regulated by law and therefore in a sense are somewhat freer. The price of this larger freedom is the individual responsibility for the debts of the business enterprise.

The proprietorship account of an individual in business is designated as his "Capital Account." Since all the profits of his business are credited to this account or his losses charged thereto, the Capital Account, provided his assets and liabilities are all properly stated, represents his net worth—that is, the combination of his original investment (or additions thereto and withdrawals therefrom) and the accumulated profits or losses from his business operations. The practice of auditing the accounts of an individual in business is, therefore, no different from auditing the accounts of a partnership or a corporation, as far as the verification of the assets and liabilities is concerned.

The Capital Account, however, must be analyzed so as to show its status at the beginning and the changes that have occurred due to capital additions, withdrawals and accretions, or deductions because of profits or losses,

respectively. Withdrawals may be either a reduction of capital invested as such, or a distribution of accumulated profits, even though the profits are merged with the Capital Account. At any rate, a withdrawal is a reduction of net worth, whether it infringes on actual capital invested as such or on accumulated profits only. The distribution of profits as dividends out of a corporation's surplus affects the net worth of a corporation in exactly the same way, irrespective of the fact that the accumulated profits are shown in a separate account.

Capital of Partners. Partners' capital accounts reflect a condition of divided ownership, and a number of restrictions may, therefore, appear in connection with their powers of withdrawal. It is consequently imperative that an auditor secure a copy of the articles of copartnership as well as copies of any supplementary agreements made between partners. The articles of copartnership generally contain the provisions as to distribution of profits, salaries allowed the partners, additional investments, interest on capital accounts, etc. Therefore, in addition to verifying the regular assets and liabilities, one must inspect closely all the accounts of the individual partners and their specific capital accounts. By holding the members of a partnership to a strict adherence to the provisions of the articles of copartnership, the auditor can very often iron out many petty differences which sometimes grow eventually to sufficient size to wreck or dissolve the organization.

The Proprietorship Account of a partnership stands in an intermediary position with reference to the individual proprietorship and the corporation. It presents the status of divided ownership found in the corporation, but retains the feature of individual responsibility as to business debts found in the individual proprietorship. In fact, some partnerships (namely, the limited partnerships and those in which we find share-capital) are only one short step from real corporate organization.

Again, certain corporations, such as national banks, seem to go back one step toward partnership, in that the law makes the shareholders responsible for twice the amount of their holdings in case of liquidation, when the realization from the assets does not suffice to meet the obligations. The partnership resembles the individual proprietorship in the partners' capital accounts, since the profits are credited to each partner's capital account, thus making the net worth the sum of the partners' capital accounts.

Capital of Corporation. It is in the corporation that we first find a clear distinction between the capital furnished by the individuals or stockholders, and the accumulated earnings or Surplus Account. Immediately upon this distinction, there disappears the principle of individual responsibility except to the extent of each stockholder's investment in the corporation or his subscription contract. The corporation assumes the status of an individual in the eye of the law, and it is the corporation as such that may sue or be sued. The shareholder cannot lose more than he has invested (except in special corporations where his liability is increased by law), and as an individual he is not liable for acts of the corporation unless these be *ultra vires* or otherwise illegal. The other advantages of corporate organization are clear. Corporate existence does not terminate with the death of any of the incorporators or stockholders. Consequently, it has that great advantage of continuity which is rarely found in a partnership. The ownership may change and yet the corporation will go on. This feature is its second strongest advantage expressed by the transferability of the evidence of partial ownership—the share of stock.

The third advantage, already suggested, is the very limited liability of the shareholder. The loss to the shareholder, if he is not an executive of the corporation, is found in the relinquishment of control. An individual

in business has full control, a partner a divided control, and a shareholder practically relinquishing control vests it with a management which he and others have put into power for a certain period. His power to control is exercised only at the annual meeting when the election of officers occurs, and from that time to the next election his control is practically nil unless perchance he happens to be elected to office.

Verifying Capital Stock Outstanding. The capital stock issued is the proprietorship account of a corporation, and the shares indicate the distribution or division of ownership. To verify the outstanding capital stock, the auditor must examine the stock registers or ledgers and the stock certificate books. These records should then be compared with the lists of stockholders. Where the corporation maintains a transfer office or if some other organization acts as transfer agent, the auditor should obtain a certificate from the transfer agent as to the capital stock outstanding. If the audit be the first audit, the articles of incorporation should be examined so that the entire authorized capital stock may be determined. The auditor's balance sheet should show the entire authorized capital stock (subdivided into classes if there be more than one class), the amount unissued, and the amount that may be in the treasury of the company.

Treasury Stock. Treasury stock must not be confused with unissued stock. It should appear among the assets in the balance sheet. Treasury stock represents an actual value received by a corporation either through purchase or through donation. It therefore is part and parcel of the elements determining the net worth of the corporation. It is an error, therefore, to deduct treasury stock from the outstanding capital stock shown on the balance sheet, for the net worth section of the balance sheet would be thereby understated. Unissued stock, however, never represents value, and should always be deducted from the authorized capital stock, thereby showing the

capital stock outstanding. The shares of stock in the treasury, if any, must be examined by the auditor, and he must also know the uses for which it has been provided. The certificates should be indorsed over to the corporation or to a trustee for the corporation, and in cases where the stock was donated, the stock should be utilized in accordance with the intent of the donors. If the stock was purchased outright by the corporation, it should be regarded as an investment, and it may be disposed of from time to time for any fit purpose like any other asset. The auditor, of course, should comment on any sale of treasury stock made at less than cost, for such a procedure would be poor financing indeed.

It is not sufficient for the auditor merely to schedule the outstanding capital stock, but he must also assure himself that all stock issued has been fully paid for in either cash or property. He should also examine into the status of any issued stock which has not been fully paid, and should obtain from the subscribers certificates in which these admit their liability to the corporation. In the case of cumulative preferred stock, although no actual liability exists for dividends until profits have been made and dividends declared, a note should appear in the balance sheet, or as a footnote thereto, indicating the amount of dividends accrued. These, of course, would have to be paid in full before any distribution could be made to common shareholders.

Surplus. The Surplus Account of a corporation is the second element composing its net worth. It should always appear as the last item on the balance sheet. Ideally it should represent accumulated profits only or necessary adjustments thereto. Thus, for example, if a company had not provided adequate depreciation during past years, a charge to Surplus Account and a credit to the Depreciation Reserve would be a necessary and proper adjustment, for the operations of past years could

not be reopened even though for proper comparisons they should be restated.

The auditor's first duty is, therefore, to secure a detailed analysis of the Surplus Account. The balance at the beginning of any period represents the accumulated profits of prior periods and should be compared with the amount shown on the company's balance sheet and the general ledger account. Normally, there should be no debits or credits to the Surplus Account during the year, except for dividends declared and charged thereto. All minor adjustments, which as a rule occur every year, should be absorbed through regular operating accounts. Accretions to the account on account of revaluation of assets should be eliminated and placed in a special Surplus Account. Profits from the sale of capital assets should go into this same account. In fact the regular Surplus Account should represent accumulated, undivided net profits from operations only. The ideal Surplus Account would have one credit or debit each year. This would be the amount placed there by closing the annual Profit and Loss Account. There would, of course, be found the additional charge or charges during each year for the distribution of the surplus as dividends, if any were declared.

The Surplus Account represents at any time the excess values of a business over original investment, provided all operations of prior periods were correctly figured, the original capital stock was taken at par, and the assets and liabilities are properly stated. Adjustments to surplus should, therefore, be confined to those which are necessary to reflect truly the results from past operations, or to those which will assist to make more accurate expression of the company's net worth.

Whether such adjustments should include revaluations of fixed assets is still a debatable question, but the weight of evidence seems to favor either a plan of omitting such revaluations entirely, or, if included, of creating for them

a special surplus account. A conservative management should not credit the entire effect of revaluations to a Surplus Account. At least a part thereof should go to increase the Reserve for Depreciation, so that the latter account may represent the provision for renewing and replacing the fixed assets at their increased reproductive cost.

An auditor should always make a distinction, where it is not already made, between actual surplus and book surplus, for the latter may often contain items which do not increase the net worth of a business or reflect the accumulated results of operation. Actual surplus should always represent the increment of true gain whereby the net worth of the corporation has been increased, and it is the auditor's function to make sure that this increment is correctly stated. If he covers in his audit all the assets and liabilities and is certain that they are as presented and fully included, he may be sure that the Surplus Account is correct even though he may not be familiar with the mode of its construction in the past years. It becomes a further duty then to analyze it, even to the date of its inception, if necessary.

The Surplus Account represents an increase of net worth over the par value of the capital stock outstanding, so that the sum of the Capital Stock and the Surplus Account, under normal conditions, represents the actual value of the capital stock. Every cash dividend paid represents a decrease in net worth, because the asset cash is reduced and the actual value of each share of stock is reduced in proportion.

A stock dividend declared out of surplus, however, in no way affects the net worth of a corporation, because it subtracts nothing from the property of the corporation. It merely subdivides the interests of the shareholder, whose investment is worth no more than before the stock dividend declaration. The United States Supreme Court has ruled in connection with suits brought under the 1913

and 1916 Federal Revenue Acts, that stock dividends represent not a distribution of income but a mere change in the number of shares issued. The corporation does not part with any value, nor does the shareholder receive any value; the shareholder has more shares of stock, but the value of the larger number of shares taken together is no greater than the value of the fewer shares he held before. The Supreme Court therefore held that stock dividends are not income and are therefore not taxable as income.

We should not forget, however, that if surplus represents accumulated profit, the division of that profit in additional shares of stock must represent an interest of the shareholder in the profits of the corporation. When such shares are sold later on by the stockholder, the profit increment of the shares should be taxed as provided by the law, because the shareholder then certainly receives his share of the accumulated profits of the corporation. The sale price of his stock is made up of the original cost to him and a proportion of the accumulated profits of the corporation, it being here assumed that the sale price is fixed by the net worth of the corporation.

STOCK OF NO-PAR VALUE

Recently a number of states have legalized the issue of no-par value stock. This legislation has had its merits in that it has eliminated many of the difficulties attending the issue of stock with nominal or "par" values. In the case of par stock it is necessary that the full par value be paid so as to make it nonassessable and, in many of the states, stock cannot be issued until full payment has been made to the corporation. As stock can generally be issued only for cash or property, or a combination of these, the stock of a par value issued for property often fixes the value of the property, rather than the property the value of the stock. In other words, the property must generally be valued in round amounts so that even values may offset the issue of the par shares.

When "par" stock is sold at a discount or premium, the difference between the amount of cash or values received by the corporation and the par value of the stock must be separately accounted for. Par stock, too, in a way, has been used to deceive the investing public. The certificates showing a face value have led many to believe that the face value represented real value and that, therefore, the equivalent price asked was warranted.

Nature of No-Par Stock. No-par stock presents no difficulties such as have just been outlined. It bears no value on its face and, therefore, does not deceive; it gives merely a fractional beneficial interest in the net worth of the corporation, irrespective of the value of that net worth. If it occupies a subsidiary position to a preferred issue, its value is just as readily determinable. Stock of no-par value, however, must be sold at some stated price. Under the various securities laws of the so-called "Blue Sky" states, the price at which the stock is offered for public sale must be justified and must be not more than its value per share as shown by the balance sheet submitted to the state authorities. The questions which naturally arise in connection with no-par value stock are the following:

1. How is the stock to be shown on the balance sheet?
2. How are the accounts to show the actual capital paid in?

No-Par Value Stock on Balance Sheet. Some corporation officials have, in a number of instances, assumed the attitude that values paid in for shares of no-par value are paid-in surplus, and have felt that, as surplus, such contributions need not be separated from earned surplus. This attitude has some element of justification because, if the stock has no-par value, then why should the amounts paid in for it be considered as capital of a fixed value? When considered as capital independent of surplus, a nominal value would have to be given to the stock and its no-par feature would become meaningless. It would immediately be set up as having a definite

capital value. It has been felt by some, therefore, that no-par value stock on the balance sheet should be designated as having the value of the entire Surplus (after making full provision, of course, for any equity of preferred shares in such Surplus), and that the amounts paid in for the no-par stock should, therefore, be merely a part of the entire Surplus. In other words, it is held that no-par stock should never be given a fixed value.

After organization of a corporation, and after a period of profitable operation, it is certainly true that the no-par stock has a value composed of the original contributions and the accrued profits, and that its value fluctuates almost daily as additional profits accrue or as losses occur.

If the value of no-par stock fluctuates at all times, is there propriety in putting a definite value on it at any time and calling that value "capital"? Again, if no-par stock is sold at a given price at one time and at a lower price later on, the value of all the shares is thereby reduced. Can one capital contribution decrease the value of an earlier capital investment? Some states protect this situation by forbidding sales of no-par stock at lower prices unless the then holders of no-par stock consent thereto.

From accounting and conservative business viewpoints, it appears, however, that capital contributions should be considered capital, and that such capital contributions should be clearly disclosed in the Balance Sheet. To put it in another way, stock of no-par value should be definitely shown in all its phases, i. e., the amount paid in therefor, as capital, and the accumulated surplus as measuring its growth in value. If capital contributions have been at various prices, that fact should at least be disclosed in the auditor's report, although it may not be possible to show the various transactions on the balance sheet. For example, if at one time 1,000 shares were sold at \$20.00 a share, and later on 1,000 shares

were sold at \$10.00 a share the balance sheet should show at least the following:

No-Par Stock 2,000 shares:	
Capital Paid-In	\$30,000.00
Surplus Earned . . . . .	.....
Value of No-Par Stock	<u>\$30,000.00</u>

Or, if more detail were desirable, in the following manner:

No-Par stock 2,000 shares:	
Capital Paid-In	
1,000 shares @ \$20.00	\$20,000.00
1,000 shares @ \$10.00	<u>10,000.00</u>
	\$30,000.00
Surplus Earned . . . . .	.....
Value of No-Par Stock	<u>\$30,000.00</u>

Dividends on No-Par Stock. The question of dividends on no-par stock presents no difficulties, although as a rule no rate of dividend on the actual capital invested is indicated. In most cases if a dividend is specified when the stock is sold it is at so many dollars or cents a share. If the rate is wanted it may be obtained by dividing the dividends paid during a year by the net worth (net assets) at the beginning of the year or by an averaged net worth. Whether dividends may be paid out of the capital contributed by no-par shareholders is still an open question in law, although the accountant should take a forceful position against impairment of capital through dividends. In Ohio, dividends cannot be paid from the funds contributed as capital. In New York, however, the statute does not prevent a capital impairment to the extent of any excess contributed over the capital specified in the incorporation certificate.

Some corporations have issued more than one class of no-par stock either in addition to par preferred or without any par preferred. In either case, it becomes necessary then to make some definite provisions at the time of issue with reference to the relative dividend rights of

the different classes of no-par stock as well as to the status of each class in case of liquidation.

Let us assume a corporation with a \$100.00 a share preferred issue to pay dividends on the cumulative basis at the rate of 7 per cent per annum, and two classes, A and B, of no-par stock. In such cases, as a rule, the B no-par stock represents stock issued for services of promoters or for intangibles, whereas the A stock is sold to the investing public either separately or in conjunction with the preferred. What then are the respective dividend and liquidation rights of the three classes of stock?

It is apparent that dividends, both current and cumulated, must be paid on the preferred stock before any dividends may be paid on no-par stocks A and B. After dividends on preferred, it is generally provided in such cases that dividends of a certain amount per share may then be paid (if available) on Class A no-par stock, and thereafter on Class B no-par stock. If the preferred dividends have all been paid and, further, the stated dividends as provided on both classes of no-par stock have been liquidated, additional provisions out of amounts further available for dividends are also generally included in the incorporation papers for both classes of A and B no-par stock or, as in some instances, for the preferred stock also. As a rule, dividends on no-par stock where there is also a par preferred issue, are not cumulative. It is the auditor's duty, therefore, to examine most carefully all dividend and liquidation provisions of the classes of capital stock, so that the balance sheet may truly reflect the following facts:

1. The Capital actually paid :
 - (a) Preferred.
 - (b) Class A Common of No-Par Value.
 - (c) Class B Common of No-Par Value.
2. The actual dividend liability on preferred stock for dividends regularly declared as payable; the actual dividend

liability for dividends declared on the no-par stock. All of these obligations should be set up among the current liabilities.

3. The remainder of Earned Surplus, and possibly other Surplus increments, whereby the value of the no-par stocks may be measured. So as to insure, or at least state this properly, it would be advisable to place first the liquidation values on Classes A and B, that is, if the Surplus be ample or to give the liquidation value to Class A and the remainder of Surplus to Class B, if the Surplus does not suffice to meet the liquidation value of Class B stock fully. If, of course, the Surplus is not sufficient to liquidate A fully, then it must be placed entirely to the credit of the A stock.

4. If there are any cumulated but undeclared dividends on preferred stock, the amounts of such accumulations should first be reserved out of Earned Surplus before calculating the book value of the no-par stock.

Even though some might contend that capital contributed by no-par shareholders is in reality Surplus, it is questionable whether such Surplus (which is doubtless paid in Surplus or capital) could be utilized to provide for undeclared cumulative preferred dividends. In the author's opinion, the paid-in capital of the no-par shares is not available for cumulative preferred dividends, unless the by-laws specify otherwise.

If instead of an earned surplus to provide for the preferred cumulative dividends there is an operating deficit, the no-par share capital would then be impaired, and, in fact, if the deficit exceeded the no-par capital paid in, the preferred capital would also be impaired. Nevertheless, any cumulative preferred dividend undeclared would have to be shown as a footnote.

Illustrative Problems. This whole discussion can best be clarified by the series of illustrative problems, following:

Case I. Corporation A shows the following condensed unadjusted balance sheet as of December 31, 1925:

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ASSETS			
Total Assets			<u>\$250,000.00</u>
LIABILITIES AND NET WORTH			
Total Liabilities			\$ 50,000.00
Net Worth:			
Capital Stock Preferred—			
Authorized	.....	\$100,000.00	
Less: Unissued	.....	10,000.00	\$90,000.00
Capital Stock, Common of			
No-Par Value—			
Authorized and Issued, 1,000 Shares Paid			
in @ \$50.00 Per Share.....		50,000.00	
Surplus Earned	.....	60,000.00	200,000.00
			<u>\$250,000.00</u>

An investigation of the affairs of Corporation A discloses the following facts:

1. That the corporation was chartered and began operations January 1, 1923.
2. That the preferred stock, \$90,000.00 was sold at par, and that this stock provides for 7 per cent cumulative dividends.
3. That no dividends have been paid or declared during the life of the corporation.
4. That the liabilities include full provision for the Federal income tax.
5. That the Earned Surplus was made up of the following net earnings (after provision for Federal Taxes):

1923	.....	\$10,000.00
1924	.....	20,000.00
1925	.....	30,000.00
Total	.....	<u>\$60,000.00</u>

6. That on December 31, 1925, the board of directors declared a 7 per cent dividend on the Preferred Stock, payable January 5, 1926, and a dividend of \$3.00 a share on the common stock of no-par value.
7. That the public accountant called in to audit the books has been asked to reflect fully the financial condition of the company on December 31, 1925, and to show clearly the value of the common stock of no-par value.

SOLUTION

1. Dividends declared must be considered as a current liability and the following journal entry should therefore be made:

	December 31, 1925.
Surplus	\$6,300.00
Preferred Dividends Payable.....	\$6,300.00

To record dividend of 7 per cent on Preferred stock outstanding, \$90,000.00, payable January 5, 1926, as per resolution of board of directors, December 31, 1925; see page 25 of Minute Book.

2. No dividends can be declared on the Common Stock of no-par value until all cumulative dividends on the preferred stock have been paid. It is assumed that the by-laws and incorporation papers include such a provision. The auditor must, therefore, ask the board of directors to rescind its action, declaring a dividend on the Common Stock of no-par value, it being considered inadvisable to pay up the cumulative preferred dividends.
3. Following his instructions the auditor then prepares the following corrected balance sheet:

ASSETS	
Total Assets	<u>\$250,000.00</u>
LIABILITIES	
Liabilities:	
Liabilities as Above.....	\$ 50,000.00
Add—Preferred Dividends.....	<u>6,300.00</u>
Total Liabilities	\$ 56,300.00
NET WORTH	
Capital—	
7 per cent Preferred	
Authorized	\$100,000.00
Less: Unissued	<u>10,000.00</u>
1,000 Shares No-Par	
Value Capital Paid	
in	<u>50,000.00</u>
Total Capital Paid In.....	<u>\$140,000.00</u>

Surplus:

Reserved for 2 Yrs.,			
Cumulative Preferred Dividends	\$ 12,600.00		
Earned Surplus			
(Unclassified)	<u>41,100.00</u>	<u>53,700.00</u>	<u>193,700.00</u>
Total Liabilities and Net Worth.....			<u>\$250,000.00</u>

[The value of the 1,000 shares of Common No-Par Stock is \$91,100.00, i. e., the sum of the capital paid in and the unclassified or unreserved Earned Surplus. This gives a book value of \$91.10 per share to the no-par stock.]

4. It will be noted from the above Balance Sheet that the cumulative Preferred Stock dividends for two years have been reserved out of Surplus before valuing the Common Stock of no-par value. The 7 per cent dividend declared takes care of only one of the three years' accumulations.
5. Had the directors decided to declare the entire cumulative dividends on the Preferred, and \$3.00 a share on the Common no-par stock, the liabilities and net worth would have appeared as follows:

LIABILITIES	
Liabilities:	
Liabilities as Above	\$ 50,000.00
Preferred Dividend, 3 years at 7	
per cent	<u>18,900.00</u>
Dividend on 1,000 shares no-par	
stock @ \$3.00.....	<u>3,000.00</u>
	\$ 71,900.00
NET WORTH	
Capital:	
7 per cent Preferred	
Authorized	\$100,000.00
Less: Unissued	<u>10,000.00</u>
1,000 Shares No-Par	
Value Capital Paid in	<u>50,000.00</u>
Total Capital Paid in.....	<u>\$140,000.00</u>
Surplus:	
Earned Surplus	<u>38,100.00</u>
Total Liabilities and Net Worth.....	<u>\$250,000.00</u>

In this case the journal entries at December 31, 1925, would set up the entire liability for the three years' dividends on the Preferred stock, \$18,900.00, payable January 5, 1926, and a \$3,000.00 liability for the Common no-par dividend payable on January 6, 1926. The book value of the Common Stock of no-par value (1,000 shares) would be \$88,100.00, or \$88.10 a share. The value of the no-par stock would have been reduced by \$3.00 a share because of the dividend.

Case II. The following is a condensed unadjusted balance sheet of Corporation B, as of December 31, 1925:

ASSETS	
Total Assets	\$500,000.00
LIABILITIES	
Total Liabilities (Unadjusted)	\$200,000.00
NET WORTH	
Capital:	
Preferred Stock (Authorized and Issued) ..	\$100,000.00
Common Class A of No-Par Value 2,000	
Shares Paid-in Capital @ \$50.00 Per	
Share	100,000.00
Common Class B, of No-Par Value, 2,000	
Shares, Paid-in Capital @ \$10.00 Per	
Share	20,000.00
	<u>\$220,000.00</u>
Surplus:	
Earned Surplus	80,000.00
Total Liabilities and Net Worth	<u>\$500,000.00</u>

- Corporation B was organized January 1, 1924, and its net profits (after Federal taxes) were as follows:

1924	\$30,000.00
1925	50,000.00
- On December 31, 1925, the board of directors declared a dividend of 14 per cent on the 7 per cent cumulative preferred stock, payable January 5, 1926; a dividend of \$2.00 a share was declared on the Common Class A stock of no-par value, and of \$1.00 a share on the Common Class B stock of no-par value; the dividends on the common stocks were made payable January 10, 1926.

- The provisions underlying the issue of the no-par value stock indicate a liquidation value for Class A Common of \$60.00 a share, and of \$25.00 a share for Class B Common.
- The auditor (public accountant) has been requested to prepare a balance sheet as of December 31, 1925, which will show the financial position and the equities of the various classes of capital stock.

SOLUTION

- The following liabilities must be first set up as of December 31, 1925, through journal entries:

Surplus	\$20,000.00
Dividends Payable Preferred	\$14,000.00
Dividends Payable Common A	4,000.00
Dividends Payable Common B	2,000.00
To Charge Surplus with Dividends declared December 31, 1925, by Action of board of directors. (See Minute Book, page 62.)	

The balance sheet adjusted to reflect the conditions above outlined would appear as follows:

ASSETS	
Total Assets	<u>\$500,000.00</u>
LIABILITIES	
Total Liabilities (Unadjusted)	\$200,000.00
Add: Dividends Payable	
on Preferred	\$ 14,000.00
on Common A	4,000.00
on Common B	2,000.00
	<u>20,000.00</u>
Total Liabilities	<u>\$220,000.00</u>
NET WORTH	
Capital:	
7 per cent Preferred	\$100,000.00
Common Class A of No-Par Value Paid in on 2,000	
Shares @ \$50.00	\$100,000.00
Common Class B of No-Par Value Paid in on 2,000	
Shares @ \$10.00	20,000.00
	<u>120,000.00</u>
Total Capital Paid in	<u>\$220,000.00</u>

Surplus

Reserved for Common Class

A to make up Liquidation

value, 2,000 Shares @

\$10.00 Per Share.....

20,000.00

Reserved for Common Class

B on Liquidation.....

30,000.00

Add: Unclassified Surplus..

10,000.00

Equity of Class B Stock in

Surplus\$ 40,000.00 40,000.00 280,000.00

Total Liabilities and Net Worth.....\$500,000.00

COMMENTS

1. It is to be noted that the dividends declared on all stocks have been set up as a liability. These dividends would appear under current liabilities on a classified Balance Sheet.
2. No reservation has been made out of Surplus for Preferred Stock, because there are no cumulative dividends undeclared. The preferred stock from a liquidation standpoint is entitled to its capital value only.
3. The entire liquidation value of Common Class A No-Par Stock has been reserved for out of Surplus.
4. The liquidation value of Class B Common Stock has also been shown as reserved out of Surplus, but the Surplus remaining should be added to show the equity of Class B stock in the Surplus.
5. Presumably the liquidation values fixed on Classes A and B Common, would not prevent the declaration of dividends to the extent of the entire Surplus, but none of the paid-in capital should be utilized for dividends.
6. Whether or not the liquidation value placed upon Common Class B stock could be reduced in order to pay dividends on this stock, or upon Class A Common Stock, or upon both, is a matter which would be entirely dependent upon the provisions as to the respective rights of these stocks as indicated in the incorporation certificate or by-laws.

From the above considerations, it will be readily seen that an auditor must be thoroughly posted on all provisions regulating the issue and the legal status of no-par value stock and he must be prepared to pass upon the value of this stock, its rights, and its status as capital or

otherwise. Familiarity with the state laws governing no-par issues is an essential qualification.

Profit and Loss Account. The Profit and Loss Account is in reality no account at all. Technically, it is the expression of all the operating accounts. It is merely a medium for closing the operating accounts, and it should be no more. Unfortunately the auditor quite often finds a so-called "profit and loss account" in the books of some concerns which is generally a nondescript dumping ground for items which some unintelligent bookkeeper cannot classify. The very existence of such an account is an argument for its elimination, because any expense or income which is a profit and loss item (that is, a current period item) should be posted directly to some expense or income account even though a new account may have to be created therefor.

As an account on the general ledger, the Profit and Loss Account represents the medium for closing the revenue or nominal accounts at the end of each fiscal period. The balance in the account will, therefore, represent either the profit or the loss for the closed period. It is merely a summary without any attempt at analysis of the real Profit and Loss Account, which is the analytical statement of a concern's operations during a certain period. This is composed and constructed in a logical way of all the accounts representing income and of all the accounts representing expense.

The balance in the general ledger Profit and Loss Account will be closed into Surplus and Undivided Profits, or into the latter account only, depending upon the action of the board of directors. In a partnership or an individual proprietorship the profits or losses would be transferred to the partners' or the individual proprietor's capital accounts respectively. A corporation, however, might wish to place some of the profits in a surplus not available for dividends, and another portion in an Undivided Profits Account to be used for the

declaration of dividends. In any event the account should be closed into a Surplus Account at the end of the period and as the final closing entry for the period. If only one surplus account is used, the balance may at once be transferred to surplus for dividend declaration, for permanent use, or for both as the case may be. Dividends may, of course, be declared out of one surplus account or out of an undivided profits account. Or, a surplus account constructed out of a period's net profits, may be subdivided into surplus available for dividends and permanent surplus, even after the Profit and Loss Account balance has been closed into it.

The auditor must, of course, be sure that dividends declared are out of surplus or a portion of surplus reserved therefor, and that the declaration does not infringe on the capital of the company. Of this he can be sure if he has satisfied himself that the net profits are real and that the balance sheet is correct, even though the dividend declaration may more than absorb the net profits of the period audited and may encroach on the accumulated profits (surplus) of prior periods. Dividend declarations are not limited to the most recently accumulated net profits, but are limited by the entire surplus (accumulated profits) and must not be out of capital. That is, they must not reduce the net worth of a business beyond the amount of the outstanding capital stock.

It is interesting to note here that although a stock dividend encroaches upon the surplus account, it insures to a company a larger net worth which cannot be encroached upon by future cash-dividend declarations. Also in reality it assures to a company the use of a larger capital investment. The corporation parts with no value whatsoever, and the stock dividend insures it in the use of that amount of surplus which it need never withdraw from the business.

TEST YOURSELF ON ESSENTIAL POINTS

1. What special matters should engage the attention of an auditor making an audit of a partnership, which he would not have to consider in auditing the books of any other form of organization? (From C. P. A. Examination.)

2. To what extent do you think it necessary to verify the outstanding capital stock of a corporation and what procedure would you follow in such verification? (From American Institute Examination.)

3. In auditing the accounts of a private firm where there are several partners, to what points should the auditor look in order to be assured that the partners' accounts are correctly stated? (From C. P. A. Examination.)

4. How should treasury stock be stated on a balance sheet?

5. A company with \$500,000.00 of common capital stock, par value \$100.00 a share, and a surplus account of \$100,000.00 decides to change its capitalization from a par to a no-par basis. It, therefore, calls in its 5,000 shares of par-value stock and issues in place thereof 10,000 shares of no-par value stock. How should the transaction be recorded? What effect, if any, will the change to a no-par value basis have on the surplus account?

Suppose that a new company is organized with 10,000 shares of no-par value stock and that this new company takes all the assets and liabilities of the old company at their book value, issuing all of its capital stock in payment therefor. How would the transaction be recorded on the books of the new company? (From American Institute Examination.)

Chapter XVIII

AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

CONTINGENT LIABILITIES

Treatment in an auditor's report and statements—Notes receivable discounted—Guaranties and indorsements—Unfilled contracts—Disclosure of hypothecated assets.

Treatment in Auditor's Statements. There has been a great deal of discussion among public accountants as to the proper treatment of contingent liabilities in the auditor's report and statements. The controversy is centered about the three methods of expression, all of them in common use. These are:

1. The inclusion of the contingent liability "in short" in the body of the balance sheet.
2. The statement of the contingent liability as a footnote to the balance sheet.
3. The inclusion of the contingent liability in the balance sheet but as a deduction from an asset (at least with reference to Notes Receivable Discounted).

The inclusion in short should appear on the balance sheet either immediately after the total liabilities or at the very bottom under the Surplus Account. The two methods are herewith illustrated:

METHOD I

Current Liabilities:	
Notes Payable	\$.....
Accounts Payable	\$.....
Fixed Liabilities	
Total Liabilities	\$.....
Contingent Liability for, etc.	\$.....
Net Worth:	
Capital Stock	\$.....
Surplus, etc. . . . .	.....
	\$.....

METHOD II

Current Liabilities:	
Notes Payable	\$.....
Accounts Payable	\$.....
Fixed Liabilities	
Total Liabilities	\$.....
Net Worth:	
Capital Stock	\$.....
Surplus, etc. . . . .	.....
Contingent Liability for, etc.	\$.....
	\$.....

The double underscore below the amount of the contingent liability will indicate that it does not enter into the footing of the balance sheet itself.

When the contingent liability is indicated as a footnote, auditors generally state it as follows: "There is a contingent liability of \$—— represented by Notes Receivable Discounted (e.g.)." The footnote would be prefaced by an asterisk corresponding to the reference asterisk following the word "Liabilities," the caption for the liability section of the balance sheet.

Notes Receivable Discounted. Some accountants hold that a contingent liability for (let us say) Notes Receivable Discounted, is so remote that it should under no circumstances be included in the balance sheet itself. They are all agreed that it must be shown in connection with the balance sheet, however, and that it should be indicated in short or by a footnote as above described. To show it in the balance sheet itself, in their minds, would mean the inclusion of the Notes Receivable Discounted as an asset and a contra inclusion thereof on the liability side. Such procedure is neither necessary nor desirable, because the entire Notes Receivable, including those discounted, may be shown in one lump sum. The Notes Receivable Discounted can be deducted therefrom, thus bringing out distinctly the total amount of notes accepted by the company, the amount dis-

counted, and the net amount outstanding not discounted. By deducting the Notes Receivable Discounted in this way on the asset side of the balance sheet, one will have a balance sheet showing no larger volume of assets or liabilities than the one constructed by the other methods heretofore enumerated, and the contingent liability will need no extra comment. As long as the contingent liability is directly connected with an element of the business which is reflected in the accounts, it appears to be the best practice to relate the contingency to the account thereby affected.

But no matter how a contingent liability is expressed by the auditor in his balance sheet and report, it is imperative that it be expressed or noted and that all contingent liabilities be disclosed. Contingencies take other forms than notes receivable discounted.

Guaranties and Indorsements. A company or individual may be a guarantor by either indorsement or contract. The auditor should inquire of the officers of a company or of the partners or individual in business, as to whether any such guaranties or indorsements exist and whether any security is on hand as protection to the business. If the partners, individuals, or officers of a corporation are interested in any other companies, such an inquiry should be very searching. The minutes of a corporation should also be closely scrutinized in this connection. To fix the contingent liability for notes receivable discounted at the bank, the banker's certificate should be called for. It is also recommended that certificates be obtained from the beneficiaries under a guarantee, so that the true status of the whole transaction may be determined. An officer of a company may not always tell the whole truth and, therefore, the guarantee may be more of a real liability than a contingency.

Unfilled Contracts. Unfilled contracts for materials, etc., in excess of current needs, though not in the ordinary

sense a liability, should receive comment on the auditor's balance sheet as a footnote and in his report. These contracts may be so large and may call for payment at such an early date that the current assets of a concern may be seriously menaced thereby or may be entirely insufficient for payment. The auditor should therefore in every audit call for the unfilled contracts or purchase orders so as to know that these are merely normal and that they do not jeopardize the financial status of his client.

Disclosing Hypothecations. The auditor should make a footnote on his balance sheet of any current assets that have been hypothecated. Sometimes all or some of the chattels, or "choses in action," of a company or business may be hypothecated to secure a creditor or money lender. Such a condition must be clearly revealed by the auditor, because other creditors should know the real value of their claims. The minutes of the corporation should reveal any hypothecation of this character, because a resolution of the board of directors would be necessary before such hypothecation could occur.

It was mentioned before that there is a strong tendency on the part of some public accountants to regard certain contingent liabilities as very remote, and they have, therefore, concluded that a mention thereof in a footnote or the inclusion thereof in short in the balance sheet is the strongest expression of which the contingency is worthy. Any auditor who has been fortunate enough to investigate the accounts of bankrupts realizes fully the dangers of such doctrines, for he generally has found that in many instances the bankruptcy itself was occasioned by contingent liabilities that became real.

A note given in settlement of an open account may in many instances indicate a weakness on the part of the maker, and if the holder discounts such a note there may be a very strong contingent liability created which may be anything but remote. In such a case it is cer-

tainly preferable to carry the note receivable discounted on the books so that the concern itself may have before it plain facts which should not be overlooked. A very thorough analysis of the notes receivable discounted should be made; many of these might represent notes that have been renewed a number of times, and they may therefore be actual liabilities. An adequate reserve had better be set up for such notes, because the reserve for bad and doubtful accounts, as a rule, does not provide for such contingencies.

It is essential in connection with any corporation audit that the auditor insist on seeing the minute book. As a rule, every item that is unusual and also the contingent liabilities will be revealed through this source. If an inspection of the minute book be denied the auditor, it is his duty to mention that fact in his report and in a footnote to his balance sheet. He should follow the same course with reference to any other significant records which his client refuses to turn over to him, indicating if possible in both instances the reasons advanced by the client for denying access to such records.

TEST YOURSELF ON ESSENTIAL POINTS

1. What do you understand by the term "notes receivable discounted"? What entries are required in respect of notes receivable discounted? How should notes receivable under discount be shown upon a balance sheet, if at all? (From C. P. A. Examination.)
2. Explain how you would treat the liability as indorser on a note in your report on audit. (From American Institute Examination.)
3. In making an audit, what procedure would you follow to verify the accommodation notes discounted? (From C. P. A. Examination.)
4. During the audit you are making of the accounts of a corporation, you become aware of a claim against the company which you think is likely to be enforced, but which the directors do not recognize, and for which they will make no reserve. What would you do in the circumstances? (From C. P. A. Examination.)
5. Discounted Notes Receivable Account showed a credit balance at a given date of \$1,200.00, representing four notes as follows, each maturing within two months:

Note No. 1.....	\$400.00
Note No. 2.....	250.00
Note No. 3.....	150.00
Note No. 4.....	400.00

Note No. 1 will be paid at maturity but there is some doubt about Notes No. 2 and No. 3 being paid. It was known, however, that Note No. 4 would not be met, since the maker was bankrupt. State how the auditor should report these notes, if at all, on a balance sheet. (From C.P.A. Examination.)

Chapter XIX

AUDIT OF INCOME ACCOUNTS

Methods of detecting inflation of sales—Manufacturers' income accounts—Proof of sales in quantities—Treatment of sales and purchase discounts—Auditing sales accounts—Income of wholesale and retail dealers.

Many auditors are so engrossed with the task of assuring themselves that all expenses have been properly accounted for and that all assets and liabilities are correctly stated in the balance sheet, that they overlook to a very large extent the income-producing accounts, or at least dismiss these accounts rather arbitrarily, on the assumption that every business, being interested in making a good showing, will on its own initiative report its income fully. This is very true, but the income may be reported too fully! Though an inflation of income should normally be discovered through the relationship of balance sheet accounts to income accounts, the general books may be so well "doctored" that the balance sheet accounts appear flawless in spite of very thorough inspection.

An analysis of the income accounts during a fiscal period and comparisons of these with corresponding months of prior periods may at once indicate "the black" gentleman in the woodpile." Thus, if the sales of the last month of the period audited were much in excess of the sales of the corresponding month of the prior period (assuming that no inflation occurred then), the excess may be the result of including during the period shipments made in the subsequent month and set up as accounts receivable.

Methods of Detecting Inflation of Sales. There are two methods of detecting such a fraud, both of which are fairly conclusive. They are:

1. Inspection of the shipping records, through which the shipments or sales for the last month of the period may be proved.
2. Analysis of the inventory or production records, as the case may be.

However, if the inventory has been "doctored," a combination of the two methods may be necessary.

Where there are cash sales, these may be inflated by running through receipts from accounts receivable as cash sales, at the same time increasing the accounts receivable for sales made subsequent to the close of the period. This fraud can readily be uncovered by checking the receipts per cash book against the bank-deposit slips, supplemented, if necessary, by circularizing the customers. The last month's correspondence file would, as a rule, contain the remittance letters or blanks, and these would afford additional proof. In most establishments cash sales are also evidenced by cash slips of some kind. These will afford the very best check on the cash sales and the consequent deposit of cash.

The inflation of sales through the accounts receivable may be detected most surely by circularizing the customers themselves and by asking for a direct verification to the auditor of the balances per books at the end of the period. In a retail, jobbing, or wholesale business, the shipments for the audited period may be proved through the final actual inventory and the relation thereof to the beginning inventory and the purchases within the period. Unless the quantities of goods reported on hand at the end of a period have been incorrectly or falsely reported, the shipments or sales should correspond to the following formula:

$$\text{Beginning Inventory} + \text{Purchases} - \text{End Inventory} = \text{Sales or Shipments (in quantities).}$$

In a manufacturing business the formula for sales would have to be modified as follows:

$$\text{Finished Inventory at Beginning} + \text{Production} - \text{Finished Inventory at End} = \text{Sales (in quantities).}$$

The use of these formulas combined with the other tests discussed above should afford all the tools necessary for a detection of sales inflation.

Manufacturers' Income Accounts. While it is true that the principal and in many cases the only source of revenue in manufacturing establishments is through the sale of finished or manufactured commodities, the determination of such sales is beset with somewhat more difficulty than the establishment of sales in a retail, wholesale, or jobbing business. In the latter cases the sales commodities are identical with the commodities purchased, and no change in their form occurs. A manufacturer, however, rarely sells his purchases. He converts them into finished commodities which represent either an entire disappearance of the purchases as raw material, or a combination of these into an entirely new or at least modified product. To account properly for quantities sold implies an investigation into the process of production wherein the raw materials are converted into finished commodities for sale, and wherein there may appear many elements of shrinkage which may or may not be avoidable.

Proof of Sales in Quantities. The sales of a manufacturer may be proved in quantity, after making allowances for spoilage and shrinkage, by the use of the following formulas:

1. Raw Material at beginning of period + Purchases — Raw Material at end of period = Raw Material content of production (reduced to formula content in finished product if possible).
2. Raw Material content of production + Direct Labor + Factory Overhead = Total Cost of Production (to be divided into quantities of finished product, by types or on a formula basis).
3. Finished Product Inventory at beginning of period (in quantities, by types) + Production (in quantities, by types as above determined) — Finished Product Inventory at end of period (in quantities, by types) = Sales of Finished Product for the period (in quantities, by types).

The application of these formulas combined with others heretofore discussed under the caption of "Inventories," should afford ample proof of sales in quantities by types and of beginning-and-end inventories.

There is no positively correct method of proving sales on a value basis. The relation of sales value to costs and to gross profits is a rough proof, but cannot be considered conclusive, especially when the auditor is confronted with a period wherein the sales prices or the costs of production have fluctuated appreciably.

Manufacturers are coming daily to a better realization of the need for proper general accounting systems and cost accounting systems. Wherever such systems are in force, the auditor will generally find that the task of verifying the income from sales is a simple one. Nevertheless he should take the precaution of examining the sales records in order to satisfy himself that they were properly closed on the last day of the period covered by his audit. He should therefore make a comparison of the shipping records with the sales records. If a concern wishes to inform its banker or creditors that it is in a healthy condition as far as sales orders are concerned, there is no objection to the addition of a statement of the bona fide orders on hand at the end of the fiscal year; in fact, it is recommended that such a statement be included. However, if this be done, the auditor should compare the outstanding orders with those on hand at the end of the previous fiscal period, and should make sure that there is no loading. The orders might very conveniently be grouped into orders for immediate delivery and for future delivery, with a general division of future deliveries by months.

Checking Manufacturer's Sales. In reporting sales, the auditor should, in his profit and loss statement, indicate first the gross sales. From this he should deduct allowances, returns, out-freight, and possibly cash discounts.

There is a tendency on the part of some public ac-

countants to view cash discounts as an expense of financing rather than as a deduction from sales, and there is considerable justification for treating them in this manner. It is an almost universal practice to regard cash discounts on purchases as a financial earning rather than as a reduction of purchase price. Why then should discount allowed on sales accounts, which is a bid for funds, be treated as a reduction of selling price? In fact, the discount taken on purchases may be made possible by the funds obtained by permitting a discount on sales. The one is a saving dependent upon the availability of funds, the other is an inducement to obtain these funds quickly. An auditor who treats discounts on sales as a financial or general expense rather than as a deduction from sales, will be free from criticism, especially if at the same time he considers discounts taken as a general or special revenue item. The two accounts may appropriately be set off one against the other.

Auditing Sales Accounts. In the audit of all sales accounts the sales should be compared with the orders for the purpose of determining first, whether all orders have been filled, and second, whether the sales have all been accounted for. Tampering with the sales account should readily be discovered by means of such comparison. All orders are presumably to be filled, and anyone tampering with the sales accounts would probably either not have access to the order books or not think of altering these as a precaution to cover a manipulation of the sales records. If such a precaution were taken, then the salesmen's own records should be examined. The salesmen's orders and, in fact, all sales orders should be numbered serially so that every order may be accounted for by number.

If the auditor works from the sales orders to the sales and finds certain orders unfilled, it is his duty to discover why they have not been filled. His request for information should first be directed to the sales department,

which should be able to produce a cancellation order or letter. If the inquiry must be pushed further, the auditor should correspond with or interview the salesmen and finally, if necessary, should take the matter up with the customer himself. The auditor, as before suggested, should also consult the shipping records. The application of any or all of these methods should establish beyond any question the correctness or incorrectness of the sales account.

Cash sales of the products of a manufacturing concern are not customary. There may be cash income, however, from other sources.

In almost every industry there is considerable scrap or offal which from time to time may be sold for cash. Probably the best way to account for such income, which is dependent upon production, is to obtain from the superintendent or the manager an estimate of the percentage of such scrap to production. This matter may have to be approached from the quantity, rather than from the value, side; i.e., the percentage of scrap resulting from the use of certain quantities of raw material may have to be determined. Whether such scrap is sold for cash or on time does not affect the method employed. The income from the sale of scrap, if resulting from a necessary operation in production, should be credited against the cost of sales. If representing the sale of obsolete material or tools, it should be credited to a Miscellaneous Income Account or to the Asset Account if the latter is still on the books.

Income of Wholesalers and Retailers. The verification of income from sales in wholesale and retail establishments is almost entirely an inventory matter. The sold commodity is identical with the purchased commodity, so that if the inventories at both ends of a period are correct and the purchases have been properly accounted for, the sales at cost will be represented by the following formula:

Beginning Inventory + Purchases — End Inventory =
Sales (at cost).

Though this formula proves the cost value of the goods sold, it is not conclusive as a test of sales unless quantities are used instead of values and unless the quantities thus determined are accounted for in the sales records. It should be remembered that the sales price is something entirely different from the cost value of the sales. In proving the Sales Account, the auditor should procure the sales price lists for the various types of articles sold and should, if necessary, inspect the individual sales entries in order to assure himself that the sales price was charged in full. Where there have been no changes in selling price during a period, or where it may be averaged, a total proof of the Sales Account may be obtained by multiplying the total quantities of the various types of commodities sold by the unit selling price. This method may not give the exact result, but if the difference is small, the auditor can feel fairly confident that the Sales Account is properly stated. He should, however, supplement the method just recommended by a fair test of the individual sale charges.

The test of sales through quantities by using the beginning-and-end inventories and purchases as bases, implies the use of a "perpetual" inventory system. The auditor may be of great service to his client by recommending such a system where it is not already in use. It is almost impossible to prevent stock shortages in wholesale and retail establishments without detailed inventory control. A perpetual inventory system in these concerns becomes truly an investment, for the cost of its operation will in almost all cases effect a saving which will be a handsome return on the outlay. Shrinkages will be reduced to a minimum and these can be accounted for quite fully.

The cash sales of a retailer form a very large per cent of his entire sales. It is, therefore, necessary to use every precaution in verifying this source of revenue. In the

larger stores the internal check on the cash and charge sales is as a rule so complete that an auditor cannot, because of the great volume of detail, do more than check the summaries prepared by the store's auditing department. He must see, however, that all the summaries have been entered properly in the general books, and should make a number of tests of the summaries. This can be done by checking the cash and charge slips for a number of days during the period to the summaries. In other large retail establishments where there is sufficient internal audit, the same procedure should be followed. In smaller retail stores, where the internal check is not extensive, the auditor must make some thorough tests of the cash sales and, if possible, relate these and the charge sales to the inventories.

TEST YOURSELF ON ESSENTIAL POINTS

1. If an auditor is satisfied that all income and expenses of a business are properly reflected in the operating accounts for a given period, should he pay any further attention to those operating accounts? If so, what should he do? (From C. P. A. Examination.)
2. Outline two methods of detecting inflation of sales.
3. What formula of sales can be used for checking the accuracy of sales?
4. Outline a method of proving sales in quantities.
5. Explain the procedure in verifying the sales account.

Chapter XX

AUDIT OF EXPENSE ACCOUNTS

Expense audit under voucher system—Comparing vouchers with voucher register—Summary of points to be observed in vouching—

Expense audit under nonvoucher system.

The audit of Expense Accounts is either quite simple or extremely difficult, according to the kind of records kept by the client. Where there is a thorough analysis of expenses through a voucher system, with all bills attached to the vouchers, the audit of Expense Accounts is comparatively simple. Where, however, charges to Expense Accounts come through the cash book, journal, and possibly other sources, with expense bills filed alphabetically after payment, it is an enormous task to verify the propriety of the charges. In fact, unless the client agrees to pay a considerable fee, it will be impossible to secure an entirely satisfactory audit.

Sometimes the auditor would do well indeed to advise his client to forget the past and to put in a proper system of accounts. An unsatisfactory audit due to poor accounting in a client's office is worth little to the client or to the auditor. It is often money thrown away which could be put to better use by engaging the auditor to put in an adequate system. Of course, where there is suspicion of defalcation or other irregularity, an audit should be made and should be limited as a special investigation. Also, in some instances it should be made in order to show the client how badly and inadequately his accounts are being kept. Some people need rude awakenings.

Expense Audit under Voucher System. Where the voucher system is in use, all expenses payable are distributed in the voucher register. This distribution may be in detail or to controlling accounts. In a small business the entire distribution can generally be shown in the

voucher register itself, but in a large enterprise it is generally found necessary to charge all expenses to a few controlling accounts in the voucher register and to supplement the register by an analysis ledger or sheet. Numbering the accounts is found very convenient and efficient in the latter case, the analysis ledger showing both numbers and names of the accounts. A convenient numbering scheme is to have all assets prefixed by the number "1," all liabilities by the number "2," all income accounts by the number "3," and all expense accounts by the number "4." A voucher register supplemented by an analysis ledger would, therefore, need few columns, for all details under the various captions would be expressed in the analysis ledger.

In examining vouchers, the auditor should make sure that they are properly approved for payment, and that the prices on the bills have been checked and the extensions verified. He should instruct his assistants to test a number of the extensions. The important task in examining the vouchers is to study the accounts to which they are charged. The nature of the bills attached to the vouchers will as a rule give sufficient information so that the distribution may readily be verified. An inventoriable purchase or an addition to Property Account can be readily detected, but there is a "twilight zone" where advice from the purchasing agent or others may be necessary.

Bills for repairs, renewals, replacements, and minor additions to plant are sometimes extremely difficult to classify, and the auditor is forced, in many instances, to "take somebody's word for it." He can, however, protect himself to a certain extent by comparing such charges, as totals, with the like charges for other periods. Because of heavy Federal Income Taxes there is a tendency on the part of some to load the expense accounts, with the result that many charges which were formerly capitalized or charged to reserves for depreciation are now put into

operating expenses. Such practices will continue just as long as governments continue to tax profits.

Comparing Vouchers with Register. In comparing vouchers with the voucher register it is hardly ever necessary to cover the entire period in detail. Exhaustive tests should be made for a number of months, scattered throughout the year. The voucher, with its bills attached, should first be compared with the voucher register entry (in the Vouchers Payable column), and a check mark in colored pencil should be made to the right of the amount. The bills attached to the voucher should then be examined and the distribution to the expense account, or accounts, or to the capital account should be verified. This examination must be analytical, and the auditor or his assistant must here display good judgment and a general knowledge of business operations so that there will be no question as to the propriety of the distribution. The distribution should be checked in the voucher register and the analysis ledger (if there be one) as well as on the voucher itself. They should agree. The voucher itself is the approved distribution, and the voucher clerk is supposed to carry that same distribution on the register from which the accounts in the ledger are constructed.

Summary of Points Observed in Vouching. The points to be observed in vouching may be summarized as follows:

1. The charge must be correct as gleaned from the nature of the bill or bills.
2. The voucher must be properly approved as to distribution and the bills must be checked as to prices and extensions.
3. The receiving clerk's original certificate should be attached to bills covering purchases. If not attached, the receiving clerk's file should be examined and a test comparison made with purchase invoices.
4. The voucher register distribution must agree with the distribution per voucher.
5. Missing vouchers must be listed (if of sufficient value).

6. Vouchers of doubtful distribution must be referred to the proper official for clarification.
7. Vouchers fully examined, passed, and compared with the voucher register should be ticked or stamped by the auditor and replaced in the file. A memorandum of the last voucher number examined at the close of any day's work should be made by the auditor, so that no one of the office force can tick any subsequent vouchers or the voucher register without its being discovered.
8. After the vouchers have been examined, the canceled checks in payment thereof should be compared with the vouchers and an appropriate check mark entered in the voucher register. Where voucher checks are used and the bills attached to the canceled checks, the vouching and accounting for the payments can be performed in one operation and a combination tick may be used (as for example "ve", the "v" representing voucher examined and the "c", check compared with voucher).
9. If there are no receiving clerk certificates, the purchase invoices should be compared (at least in part) with the stores records.
10. The auditor must satisfy himself that vouchers are made out to the creditors whose names appear on the bills, and that the checks in payment are made out to the same parties.
11. Bills permitting discounts should be compared with the discount entries on the cash book or the voucher register according to the practice of the client in this matter. Some forms of voucher registers provide a column for purchase discounts, whereas in other cases purchase discounts are taken care of in the cash book or check register.
12. Petty cash vouchers should be carefully tested, and proper receipts must accompany each voucher distributed through the voucher register. Any suspicious-looking receipts must be traced, and payment to officers or employees must be satisfactorily explained. Very often an irregularity on the part of the cashier can be discovered by passing the petty-cash vouchers to an official of the concern for approval. The auditor himself cannot afford to put in too much time on petty cash or general vouching, as there are many more important tasks.
13. The auditor should have one of his assistants verify the footings of the voucher register (either in part or in whole,

depending upon the extent of internal audit), and all the postings from the voucher register to the general ledger should be checked.

14. At the completion of the vouching a list of the unpaid vouchers should be prepared from the voucher register and compared with the general ledger controlling account for Vouchers Payable.
15. All journal adjustments to Vouchers Payable should be fully examined.

Expense Audit under Nonvoucher System. The procedure outlined above is for vouching where a voucher register and system are in use, with the vouchers filed numerically after they are paid. Unfortunately, however, voucher systems are not in universal use and it is sometimes difficult to convince a client of the advantages of such systems. We cannot, of course, discuss here the relative merits of accounting systems, nor does this consideration improve the status of poorly kept accounts which nevertheless must be audited.

The auditor will generally find that where voucher systems are not in use, the payment of bills is not tied up with any system of filing the bills themselves, and that the bills are generally filed alphabetically for convenient reference use. Vouching under such conditions is beset with numerous difficulties, and the auditor should proceed according to the following rules:

1. He should call for all bills arranged according to dates of payments (whether he expects to use them all or not).
2. From the cash book or purchase record (if there be one) he must inspect the charges to the various expense, purchase, or capital accounts. He must compare the bill by name of vendor, amount, and nature with the entry in the cash book or purchase record, with its distribution therein, and with the check or cash payment. This work may be all inclusive or may be confined to complete tests covering certain periods. The auditor may possibly deem it sufficient to examine bills and payments throughout the period in excess of a certain amount.
3. He must give especial attention to the distribution of the charges, because where accounts are kept loosely the danger

of improper classification is very great. He must also check the general ledger postings very carefully.

4. The amount of the various expenses during the audited period should be compared with the same expenses of prior periods in order to discover any loading or other irregularities.
5. The cash book and other records involved with purchases and expenses should be footed, and their totals should be traced into the general ledger.
6. All petty-cash disbursements should be carefully analyzed and properly accounted for. Receipted bills should be demanded for all petty-cash disbursements and any irregularities should be thoroughly ironed out.

Wherever books are kept loosely, the auditor can be of great service to a client if he will make a very thorough inspection of the accounting system, report on its weakness and inadequacy, and recommend generally how the system may be improved. Any constructive advice in an auditor's report, not too freely given, makes the client feel that the public accountant is interested beyond the collection of a fee.

TEST YOURSELF ON ESSENTIAL POINTS

1. Suppose you were the junior accountant on an audit, and were told by your senior to check in detail the vouchers for the months of November and December. Outline your procedure from beginning to end, assuming that the company had adopted the voucher system.

2. If in Problem 1, you find that the company had not a voucher system, would your procedure be different? If so, outline the steps.

3. In what circumstances should paid checks be treated as vouchers? Are checks always proper and sufficient vouchers for purchases? Give reasons. (From American Institute Examination.)

Chapter XXI

AUDIT OF EXPENSE ACCOUNTS (Cont'd)

Extraordinary expenses—Deferred and accrued expenses—Salaries and wages—Checking pay rolls.

The previous chapter presented the general principles involved in auditing expenses. It is necessary, however, to analyze more specifically the peculiarities of certain expense accounts, many of which are common to almost every type of business, and to outline the methods to be employed by an auditor in examining these accounts. These expenses may be grouped as follows:

1. Extraordinary expenses not chargeable to operations.
2. Deferred and accrued expenses.
3. Salaries and wages.
4. Selling expenses and salaries.
5. Administrative and general expenses.
6. Legal expenses.
7. Returns and allowances.
8. Interest on loans, etc.
9. Freight and express.
10. Factory costs.
11. Bad debts.

Extraordinary Expenses. At times, in almost every business, extraordinary expenses arise, which in no way immediately affect operations, but which must, nevertheless, be deducted before the surplus net profits of a period can be determined. There might be extraordinary legal expense in connection with unusual suits brought against a company. For example, several years ago a number of dissatisfied stockholders brought suit against the board of directors of a corporation, claiming that certain securities owned by the corporation had been sold at a price damaging to the stockholders. At the same time, these stockholders also filed a petition for a receiver. Investigation revealed that these stockholders had previously secured

an option on the securities; the option had expired, and the securities had been sold to others at a higher price than that offered by the stockholders. The company had really got a much better price than the stockholders themselves had offered, but they were piqued that the securities had not come to their hands; hence they brought suit against the directors and applied for a receiver on the claim of mismanagement. An audit proved that there was no basis for suit and that the company had been better managed than ever before in its history. However, a considerable sum was expended for legal advice in fighting the disgruntled stockholders and averting receivership.

This expense had to be charged in its entirety during the period of its incidence. It could hardly have been treated as a deferred expense, for it in no sense benefited future operations nor did it bear any relation whatsoever to operations either current or future. If anything, the good name of the company was jeopardized for a short period as a result of the suit. It would have been very inappropriate to defer any of the legal expense, for the future certainly received no benefit, and a deferred item of such character would have made a very sorry showing on the balance sheet. One might think of many such unusual expenses which must be charged out during a current year, even though they bear no relation whatsoever to operations or the results from operations.

When confronted with any unusual expense, such as the one just stated, the auditor should insist that it be completely charged off as incurred, and must, moreover, determine, from whatever sources necessary, that the entire expense has been accounted for and that nothing foreign thereto has been included in order to show up the net profits from operations more favorably. Any extraordinary expenses should be fully explained in the auditor's report, and in the profit and loss statement, they should be deducted as extraordinary expenses after

the net profits from operation have been clearly shown. On a representative condensed profit and loss statement they would appear as indicated herewith:

Sales	\$.....
Deduct—Cost of Sales . . . . .	.....
Gross Profit	\$.....
Deduct—Selling and General Expenses:	
Selling Expenses	\$.....
Administrative Expense . . . . .	.....
Net Profit from Operations	\$.....
Deduct—Interest on Loans and Extraordinary Expenses:	
Interest on Loans	\$.....
Extraordinary Legal Expense (see	
p— of report) . . . . .	.....
Surplus Net Profit	<u>\$.....</u>

Some extraordinary charges cannot properly be deducted during the current year, but become surplus charges. Such would be a charge for obsolescence. Thus, a machine costing \$5,000.00, the life of which was estimated at twenty years, became obsolete at the end of the fifth year. It had been depreciated only to the extent of \$1,250.00. Then the loss due to obsolescence, amounting to say \$3,000.00 (assuming \$750.00 to be the scrap value), could not be charged entirely against the fifth year. Four-fifths of the \$3,000.00 would have to be charged against surplus and one-fifth to the fifth year as an extraordinary charge. The entire period during which the machine was useful should bear the charge for obsolescence rather than the final year.

In cases of this kind the auditor should caution and counsel his client to provide for the element of obsolescence through the depreciation reserve. This reserve should be made sufficiently large on all equipment so that the obsolescence of any individual equipment may be covered; thus, if all machinery were estimated to have a normal life of ten years, a depreciation reserve constructed on the basis of eight years for all the machinery

ought to provide fully for the almost certain obsolescence of single units.

All vouchers or payments for unusual or extraordinary items and all unpaid liabilities in connection with such items must be examined carefully and no effort must be spared in demonstrating that the liability has been fully taken care of in the accounts. In the case of law suits affecting the financial position of a client, it is the auditor's duty to review the case fully and to secure a complete knowledge of the claims of both sides. He should not be guided entirely, if at all, by the contentions of his client, for he should desire first and foremost to know the whole truth. He must be guided in his conclusions and recommendation by the facts and by their effect upon his client's financial position or profits. He may be brought to a severe test, but such tests are the real factors which make him either a respected exponent of his high profession or a charlatan.

Deferred and Accrued Expenses. These expenses have already been discussed in their relation to the balance sheet. It is equally important, however, for an auditor to see that each month's operations are charged with the correct portions of the unexpired insurance, the prepaid interest (if any), the accrued interest, wages, salaries, commissions, taxes, and similar items. Convenient registers and records have been provided for the monthly distribution of most of these expenses and such records should be fully examined. The deferred or the accrued amounts at the end of the period must actually represent either a correct charge to future operations or a current charge payable at some future time, respectively. It cannot be too strongly recommended that all expenses be placed on a monthly basis in order that, combined with the cost of sales, the results from operations, or net profits, may be known at the end of each month. There are few concerns indeed that can afford to wait an entire year before reckoning profits.

Salaries and Wages. The auditor should call for the pay rolls covering general office and executive salaries as well as for the pay rolls indicating the wages for factory or manual labor. The office pay rolls should be approved by some officer of the company, and all changes in salaries must have proper authorization. The canceled checks for salaries should be compared with the pay-roll book. It may not be necessary to do this for the entire period, but sufficiently exhaustive tests should be made.

The entire pay-roll procedure should be investigated. Some firms still continue to show on the cash book the checks or currency made payable to each individual. This is poor practice, for it permits the members of the office force to know what their confreres are receiving and may thereby engender dissatisfaction, petty strife, and jealousies. Although individual checks may be issued, the pay roll for office help and executives should be shown in total in the books and the canceled pay-roll checks should come into the hands of some one trusted employe, who should also prepare the bank reconciliation statements. Where salaries are paid weekly, it is sometimes difficult to keep the books on a monthly basis, and the auditor will do well to recommend, in such cases, that payments be made either monthly or twice a month, so that the salary expense or pay roll can readily be included each month in full.

Checking Pay Rolls. In large establishments it is just as necessary to safeguard the office pay roll as it is the manual labor pay roll. There is just as much danger of padding in the one case as in the other. We have found that it is sometimes necessary to take an actual physical inventory of the office employes. Such practice is sometimes fitting in large department stores, where each department manager prepares his own departmental pay roll and often pays his employes in person.

Several years ago a fairly extensive pay-roll padding was discovered by actually inventorying the employes in

a large department store. The auditor in this case prepared the departmental pay rolls in detail by departments and requested each department manager to certify thereto and to produce receipts from his employes. One was rather reluctant to give his certificate, and further investigation revealed considerable padding. A certificate was not sufficient in his case. The auditor went further and actually inventoried the employes, having each employe verify the rate shown in the general pay-roll book. In small concerns where every office employe is known by the manager, such precautions are of course entirely unnecessary, and the manager's approval to the pay roll will suffice.

Quite a number of industrial concerns maintain service files which form a constant record of men on the pay roll as well as of the past experiences of the employes. Some concerns employ such a system for all employes, whether in the factory or the office. A comparison of the service file with the pay rolls affords an excellent check against the latter. The pay roll is prepared by someone who has no access to the service file and who, in fact, may not even know of its existence.

Factory pay rolls for manual labor must be very carefully checked. In most modern industrial establishments the men are paid in cash, and their pay is handed out to them in pay envelopes. These pay envelopes should never be filled by the same person making up the pay roll, nor should they be handed out by that person. Every pay roll should be properly audited before the men are paid. The pay roll itself should be first compared with the general time cards taken from the time-clock trays, and these in turn, where a cost system exists, should be compared with the factory time cards which record the distribution of each man's time. The general auditor or his assistants should superintend the actual paying off of the men and should tick the pay roll for envelopes handed out. Any envelopes left over should

be placed in the cashier's office and checked against the time cards remaining. After payment, the time cards should be filed in the general office and should from time to time be compared with the cost records or service files.

The extent of an auditor's investigation of the pay rolls should be measured by the nature of the pay-roll system. Where the system is surrounded by extensive internal checks, a number of tests should suffice. Where the whole system is loose, the matter must be gone into thoroughly and exhaustively, possibly even to the extent of making an inventory of the labor personnel. Fortunately one will find that, usually, the bigger the industry the larger the safeguards against padding; therefore the detailed investigations are generally confined to small, poorly organized establishments where the task of verification is limited and possible. The entire matter of wage and salary expense auditing is dependent upon the system employed by the client.

TEST YOURSELF ON ESSENTIAL POINTS

1. In the audit of the books of a company, it is found that the president's salary account is credited with a bonus of \$5,000.00 for "extra service", in addition to the usual salary paid him. What steps should be taken to ascertain that this item is correct? (From C. P. A. Examination.)
2. In auditing the accounts of a trading company for 1925, you find a general expense with a balance of \$8,654.58. The pay-roll account for the year was \$66,285.69. Would you consider it necessary to analyze the general-expense account where you were instructed to complete the audit in the minimum time? (From C. P. A. Examination.)
3. How would you proceed to determine whether there are any charges to expense accounts for deferred and accrued items not considered on the books of the company you are auditing?
4. Outline your procedure in auditing the payrolls of a manufacturing business.

Chapter XXII

AUDIT OF EXPENSE ACCOUNTS (Cont'd)

Selling expenses and salaries—Salaries, commissions, and expenses—Advertising expense—Administrative and general—Legal expense—Returns and allowances—Interest on loans—Freight and express—Factory costs—Bad debts.

Selling Expenses and Salaries. Before making the necessary inspection of selling expenses and salaries, the auditor should call for the contracts of his client with the salesmen. These sometimes stipulate exactly what expenses are allowable as well as the basis of remuneration. Sales agents selling on a straight commission may not have a claim against the concern until the sales accounts have been paid in full. In other cases, commissions are graded according to the size of order and again are varied with reference to different types of goods. Sometimes bonuses are paid or are payable on excesses of sales over a fixed figure. Such bonuses must be set up as a liability at the end of the fiscal period.

All of these considerations, and more, must be in the auditor's mind before he plunges into the details of selling expense accounts. He should know specifically the relations existing between the salesmen or the agent and his client, in order that he may make a just interpretation and analysis of the accounts. Compliance with contract or written employment proposals on the part of both employer and sales agent should form the basis of the deeper analysis of the selling expenses and salaries accounts.

Salaries, Commissions, and Expense. The mechanical work that follows the gaining of this information has to do with the audit of the salaries, expenses, and commission of sales agents by means of fairly extensive tests of the salesmen's expense reports, of the commission reports or statements, and a comparison of these with the vouch-

ers and payments issued. The salesmen should be required when sending in their expense reports to submit receipts for hotel bills paid, for livery, and for their transportation. Where mileage books are used, the salesmen should make weekly or semimonthly reports of miles used, and these should tally with the distances between towns as reported in the expense reports. Unused mileage, if of sufficient value, should be considered as an advance at the end of the fiscal period in the auditor's balance sheet. In some concerns this item runs into hundreds or thousands of dollars and must receive consideration. In many companies the salesmen are required to report on the mileage in their possession with as much care as they exercise in reporting their cash expenditures. Consequently, in such cases, the auditor will have little difficulty in determining the value of unused mileage at the close of the period under audit.

The auditor must also call for all the salesmen's expense reports handed in immediately after the close of the period, so that the accrued expenses will receive consideration. As the salaries of salesmen are usually paid once or twice a month, they should be easily verified and any accruals readily detected.

Advertising Expense. Outside of selling salaries, traveling expenses, commissions, etc., the principal item in the selling expense accounts is advertising expense. According to its nature advertising expense either is immediately chargeable or may be deferred. Current advertising in newspapers, magazines, or on billboards, if continuous, had best be charged at once as expense. If, however, a new line of goods is got out or a special campaign is launched, it is perfectly legitimate to defer part or all of such expenditures until returns come in. Since the auditor examines the accounts at a date sometimes considerably subsequent to such expenditures, he generally has the opportunity to know whether or not they have been successful. This knowledge should guide him

in placing a valuation on the deferred charge. There is, let us remember, a general tendency on the part of the advertiser to overvalue his advertising. A new line of goods may not sell at all, and many special advertising drives have failed to go "over the top."

Regular advertising through the medium of catalogs can be put on an inventory basis, provided the catalogs illustrate and advertise a company's standard products. The cost of the catalog issue should be charged to a Catalog Inventory Account. As the catalogs are mailed or distributed, the Inventory Account should be credited and Advertising Expense charged. The rules governing inventories should be used by the auditor in verifying the balance in such accounts at the end of the period audited, and all old or obsolete catalogs should be charged off. The large mail order houses do all their advertising by catalog. Thus in their case the Catalog Inventory Account is of the very greatest importance and deserves close scrutiny.

Administrative and General Expenses. The audit of executive and clerical salaries has already been discussed. The other administrative and general expenses consist of a great many items, chief among which are telephone and telegraph, postage, the expenses of the credit and collection department, depreciation of office furniture and fixtures, traveling and general expenses of officers, dues and subscriptions, stationery and office supplies, and a host of minor general office expenses. A thorough test of the vouchers covering these expenses must be made by the auditor, and he should secure an analysis of them for comparison with the like expenses of prior periods.

He must also make sure that all expenses of this nature have been included in the accounts for the period under audit. If they have not, he should set up the liabilities therefor, always bearing in mind, however, that similar treatment must be accorded to the same accounts at the

beginning of the period he is auditing. This is a good rule to follow, because even after such expenses have presumably all been discovered some additional odds and ends will still turn up. Such items may, of course, be disregarded both by the auditor and by the company, for as a rule they are inconsequential and recur practically every year.

Legal Expenses. The account for legal expenses should always be carefully inspected and the vouchers charged thereto closely scrutinized. This account is sometimes used as a repository for unusual expenditures or for some that are open to criticism from the viewpoint of business ethics. Again the auditor must make sure that all legitimate legal expenses have been fully charged. His inspection of the minute book and other records should reveal whatever litigation his client is party to. It then becomes the auditor's duty (if the client has not already done so) to request that the attorneys send in their bills covering their entire charges to the close of the period being audited. With reference to irregularities in the Legal Expense Account the auditor must take a firm stand, and should report the account in accordance with his analysis thereof even though such action cost him his fee.

Returns and Allowances. Credits to Accounts Receivable other than for cash, deserve the closest kind of scrutiny. Not only may such credits be an indication of careless business policy, but they are as frequently a common cover for fraud. Many bookkeepers have used this way of temporarily enriching themselves. Cash collected was pocketed and the customer's account credited by journal entry, the charge being to Returns or Allowances; or at times part of the cash may have been pocketed and, therefore, only a partial credit passed through the journal, making the transaction appear less suspicious. In other instances, numerous journal credits for returns and allowances indicate a weak business or busi-

ness-getting policy. Some concerns consistently make allowances to customers merely to retain their good will and to secure more business. The customer soon reaches a stage where he expects the allowance as a regular thing, and if refused he withdraws his account.

In well-organized offices, the dangers of abuse through the Returns and Allowance Accounts are not very great, provided the company's business policy is strong. The auditor will find, as a rule, that all credits to customers for returns or allowances have been fully authorized by the proper official. These authorizations must be examined (at least in part) and in the case of credits for returns the auditor should call also for the receiving records and actually trace the return into the Inventory Account. The returns must not only be evidenced by an entry crediting the customer and charging sales, but must be expressed by an additional entry charging inventory and crediting cost of sales. Many large concerns now use return and allowance journals, in which the authorizations (which should be consecutively numbered) are entered and thence posted to the appropriate accounts. These journals should not be kept by the accounts receivable ledger clerks, but should form a part of the general auditor's records, for they are instrumental in fixing the general ledger controlling account for the customer's ledgers.

The power of granting allowances to customers and of permitting goods to be returned should be carefully circumscribed and, in fact, should be allocated to a very few individuals. These persons should make a thorough review of each case before acting, and they had better be officers of the company rather than any of those specifically interested in sales promotion, collections, or credits. Authorizations for returns and allowances should be filed numerically after entry in the allowance journal so that they may be referred to readily. A cross index will be afforded if the ledger clerk is instructed to insert

the authorization number when crediting the customer. The auditor should make a number of very thorough tests, even where the authorization system is in force, in order to be certain that there are no abuses of the power to grant allowances and authorize returns. Every allowance cuts into profits, and every return means not only a sale lost but the waste of the expenditures made in securing the order.

Interest on Loans. Interest on borrowed money, though not affecting net profits from operations, except in the case of financial institutions, is an expense of conducting business which decreases the amount of net profit carried to Surplus Account. It may consist of interest on bank loans, on notes given in settlement of purchases, on construction contracts, or on bonds or other fixed indebtedness. To put the case briefly, it is an expense of financing or funding a business. Interest on borrowed money should therefore not appear in the auditor's profit and loss statement until after the net profits from operations have been stated.

The Interest Expense Account may be verified in conjunction with the examination of the Notes Payable or Bonds Payable Account. In this examination the total amount of interest for which the company is liable during the year on each instrument of indebtedness should be tabulated, and this tabulation should be compared with the Interest Expense Account, with which it should agree. If it does not, then the company has probably neglected to consider the accrued interest or has failed to make adjustments between years. The interest attached to each instrument of indebtedness during a given period and a tabulation prepared on that basis should give the correct amount chargeable during the period.

The auditor should also ascertain whether there are any interest obligations for past-due accounts payable, or on loans made by officers or partners, as the case may be. Interest is also charged, and sometimes at very high

rates, on unpaid judgments, past-due taxes, and other liens. No audit is complete until the auditor has assured himself regarding possible liabilities of this sort.

Freight and Express. Too often the auditor passes over the charges for freight without any attention whatever, assuming that the railroad companies make no mistakes. Though the auditor is not supposed to be a classification and rate expert, he should have sufficient knowledge of tariffs and commodity classifications to make a number of fairly conclusive tests of freight payments. Railroads and express companies frequently overcharge. The auditor should inspect closely the system of checking freight and express bills and he may safely assume that, if his client employs an experienced traffic manager, overcharges will be rare. Every freight bill should be approved as to rates and weight, and a number of bills should be examined in any event. It is important for the auditor to see that all freight paid on f. o. b. destination shipments has been deducted from the vendor's invoices. Shipments on which freight has been prepaid by the consignor must also be carefully investigated.

Factory Costs. In manufacturing plants having cost systems, it becomes the auditor's duty to acquaint himself with the system in use and, if possible, to reconcile any differences that may exist between the costs as recorded by the cost department and those included in the general accounts. *A cost system that cannot be tied up with the general books is of little value.* A cost system must report the actual costs of all labor, material, and such overhead as is accurately determinable or paid, and the general books must be brought in line therewith. The overhead, based upon estimates including items like depreciation, must be furnished to the cost department by the general accounting staff, and the costs must include these estimates. A double co-operation of this kind should make the costs per general books agree with the costs shown in the cost department.

It is not within the province of this work to outline a proper cost system, nor to discuss the methods by which the records of a cost department may be tied up with the general books, but it is our duty to remind every auditor engaged in auditing a manufacturing business where a cost system is employed, that his task cannot be considered complete or worth while unless he makes a thorough examination of the cost system and its relation to the general accounts. If the two are at variance in their expression, a reconciliation must be established so that true costs may be recorded in the auditor's statements and on the books of his client.

Whether a cost system exists or not, it is the auditor's duty to verify all the accounts affecting costs of operation and to analyze them properly. This is important not only with reference to the cost accounts themselves, but in connection with the valuation of inventories of goods in process and of finished stock. Methods of verifying these inventories have been discussed previously. The auditor should, of course, give his client whatever constructive advice is necessary with reference to cost systems and their relation to general accounting.

Bad Debts. This item of expense is so common that little comment is necessary. The Bad Debt Account may either represent the amount reserved for bad and doubtful accounts, or may be the sum of bad accounts actually written off during a period. In the latter case there would probably be no Reserve Account, although there might be instances where accounts were charged off rather than to the reserve to take care of special cases not covered by the reserve. An account should not, as a rule, be charged off until it has been reduced to uncollectible judgment or until a report of its entire uncollectibility has been received. Until an account has been proved absolutely uncollectible it is advisable to carry it in a suspense ledger, in order that it may be kept in mind and followed up and also in order that additional shipments

may be prevented. Suspense accounts must be fully reserved for, but should be carried as an asset until proved bad. At that time they should be charged off against the reserve, or to bad debts if no reserve is carried.

TEST YOURSELF ON ESSENTIAL POINTS

1. What would you consider satisfactory evidence of the correctness and propriety of expenditures of the following classes?

Salaries paid to salesmen.

Salary and expenses of president.

Advertising expense.

(From American Institute Examination.)

2. How is the position of an auditor affected if the system of the concern under audit is defective as to cost methods? (From American Institute Examination.)

3. Why is it important to examine carefully the account for returns and allowances?

4. What steps would you take to verify the amount of freight and express?

5. What special attention should an auditor pay to Commission Expense Account?

Chapter XXIII

ANALYSIS OF ACCOUNTS

Amount of analysis work dependent upon the classification of accounts—Outline of analysis of balance-sheet and profit-and-loss accounts—What analysis reveals.

The amount of analysis work to be performed by the auditor depends almost entirely upon the classification of accounts maintained by the client. Many concerns through the use of analysis ledgers, or sheets, make a very detailed analysis of their accounts according to accepted classification principles. In such cases the auditor needs only to verify the analysis by inspecting the vouchers or other sources on which the analysis is based. A great deal of care must be used to see that the segregation is proper, but tests will usually suffice. The internal control is generally adequate and sufficiently intelligent so that proper analysis may be secured.

Outline of Analysis of Accounts. Where, however, there is little if any attempt at correct classification or analysis, the auditor may have to go to very great lengths in order to secure a properly segregated or analytical statement of income and expense. He may even find that the assets and liabilities need to be analyzed in order that they may be properly grouped in his balance sheet. The following outline will suggest the segregation or analysis of representative balance-sheet and profit-and-loss accounts:

ASSETS

1. Cash:
 - (a) Cash in bank.
 - (b) Cash on hand or in Petty Cash Fund.
 - (c) Cash held as deposits.
 - (d) Working Funds and Travelers' Funds.
2. Notes Receivable:
 - (a) From customers.
 - (1) Age analysis of past due notes.
 - (2) Renewals.
 - (3) Current and not due.

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- (b) From officers and employees and their status.
- (c) Notes Receivable discounted.
- (d) Notes out for collection.
- (e) Notes held for other purposes.

(List of securities held as collateral.)
3. Accounts Receivable:
 - (a) Customers' accounts (analyzed according to age).
 - (b) Accounts of officers and employees.
 - (c) Miscellaneous Accounts Receivable.
 - (d) List of probable discounts.
4. Reserve for Bad and Doubtful Accounts.
 - (a) Amount at beginning of period.
 - (b) Amounts reserved during period.
 - (c) Accounts charged to reserve during period.
 - (d) Reserve at end of period and basis of construction.
5. Inventories:
 - (a) Raw materials, by classes if possible.
 - (b) Stock in trade (in case of retailers and wholesalers) by classes.
 - (c) Goods in process and basis of valuation.
 - (d) Finished goods by types.

(All to be tied up with purchase and production records.)
6. Prepaid Expenses:
 - (a) Insurance:
 - (1) Record of policies by numbers, companies, and amount.
 - (2) Amount of premiums paid and charged to Prepaid Insurance.
 - (3) Amount unexpired.
 - (4) Balance charged to Insurance Expense.
 - (b) Interest:
 - (1) Date of loans.
 - (2) Interest or discount rate.
 - (3) Due date.
 - (4) Amount at end of period.
 - (c) Miscellaneous Prepaid Items:
 - (1) Catalogs.
 - (2) Office supplies, etc.
7. Investments:^①
 - (a) In the securities of subsidiaries:
 - (1) Date of securities and their nature (stocks or bonds).

^① If any securities are out as collateral, this fact should be recorded. The income from the securities should always be related to the investment accounts.

- (2) Total securities issued by subsidiary and percentage held by client.
- (3) Dates acquired and price paid.
- (4) Accrued or total income derived or to be derived.
- (b) In outside securities (bonds or stocks):
 - (1) Dates and maturity.
 - (2) Interest rates.
 - (3) Interest received and accrued or last dividend received.
 - (4) Market value.
 - (5) Excess of market value over book value or vice versa.
 - (6) Movement of securities during year (through sales, new purchases, or otherwise).
 - (7) Balance at beginning of period; purchases or sales and balance at end.
- (c) In a company's own stock or securities:
 - (1) Dates acquired and price paid.
 - (2) Securities donated and basis of valuation.
8. Fixed Assets:
 - (a) Land by parcels as originally acquired and additions.
 - (1) Changes due to appraisal or revaluation.
 - (2) Sales.
 - (3) Balances.
 - (b) Buildings:
 - (1) Various classes and their values at beginning of period.
 - (2) Depreciation rates.
 - (3) Amounts of depreciation.
 - (4) Additions or sales.
 - (5) Loss or gain on sales.
 - (6) Adjustments to Reserve for Depreciation.
 - (7) Balance at end of period.
 - (c) Machinery or Equipment.
 - (1) Factory equipment and machinery by buildings or departments (values at beginning of period).
 - (2) Depreciation rates.
 - (3) Amounts of depreciation.
 - (4) Obsolescence during year.
 - (5) Additions or sales.
 - (6) Loss or gain on sales.
 - (7) Adjustments to Reserve for Depreciation, or because of revaluations.
 - (8) Balance at end of period.

- (d) Office Furniture and Fixtures (treated as above).
- (e) Power Plant and Equipment (treated as above).
- (f) Warehouses (treated as above).
9. Good will, Patents, Trade-Marks, etc.
 - (a) Basis of valuation and beginning balance.
 - (b) Rates of depreciation and amounts of depreciation (if any).
 - (c) In the case of goodwill, how acquired.
10. Deferred Charges:
 - (a) Advertising:
 - (1) Basis of deferring.
 - (b) Bond Discount:
 - (1) Basis of deferring.
 - (c) Organization Expense:
 - (1) Basis of deferring.
 - (d) Etc.

LIABILITIES

1. Notes Payable:
 - (a) For loans.
 - (1) Dates of notes.
 - (2) Due dates (with notation on past-due or renewed notes).
 - (3) Amount.
 - (4) Rate of interest.
 - (5) Interest paid and payable (or accrued).
 - (6) Collateral (if any).
 - (b) For purchases or on contracts (same analysis as above).
 - (c) To officers and employees (same analysis as above with additional notes on character of the notes and why given).
2. Accounts Payable:
 - (a) For purchases, etc. (analyzed according to age; estimate of discounts).
 - (b) Accounts of officers and employees.
 - (c) Miscellaneous Accounts Payable.
 - (d) Accrued accounts.
 - (1) Wages, salaries, commissions, etc.
 - (2) Taxes.
 - (3) Interest.
 - (4) Miscellaneous accruals.
3. Bonds and Mortgages:
 - (a) Bonds:

- (1) Date of issue.
- (2) Due dates.
- (3) Amounts of issue.
- (4) Interest rates.
- (5) Total amount of interest to be charged to period separated into amount already paid and amount accrued.
- (6) Trustee.
- (7) Sinking-fund requirements and practice.
- (8) Security.
- (9) Mortgage recorded at
- (b) Mortgages:
(Practically same analysis as for bonds.)

RESERVES

1. For Depreciation:
 - (a) Buildings, machinery, equipment, etc.:
 - (1) List of buildings, machinery, etc., or in groups according to their uses and construction.
 - (2) Balance reserved for each at beginning of period.
 - (3) Rates of depreciation.
 - (4) Amounts of depreciation reserved during period.
 - (5) Replacements and renewals charged during period under each group of assets.
 - (6) Supplementary:
 - (a) Repairs and maintenance charges during period on each group.
 - (b) Total upkeep charges (the sum of depreciation reserved and repairs).
2. Special Reserves (analysis dependent upon the nature of each).

NET WORTH

1. Capital Stock:
 - (a) Total authorized (shares and par value).
 - (b) Total issued (shares and par value).
 - (c) Amount in treasury (if any) and consideration therefor.
 - (d) Distribution of shares:
 - (1) Outside investors.
 - (2) Officers and department heads.
 - (3) Employees.
 - (e) Basis of distribution:
 - (1) Sales for cash.
 - (a) At par.

- (b) At premium.
- (c) At discount.
- (2) In exchange for property or intangibles.
- (3) As bonuses or under profit-sharing arrangements.
- (4) Stock dividends.

2. Surplus:

- (a) Balance, beginning of period, and composition thereof.
- (b) Adjustments or changes during period, and nature thereof.
- (c) Surplus net profits for period (as substantiated by profit and loss statement).
- (d) Balance at end.

INCOME

1. From Sales or Trading:

- (a) Sources and distribution (arranged by classes or types of product or departments).
- (b) Sales by sales territories or by salesmen.
- (c) Sales by branches.

COST OF SALES

1. Manufacturing Costs:

- (a) Materials (including "in freight" and storing charges).
- (b) Direct labor.
- (c) Factory overhead.
 - (1) Indirect labor.
 - (2) Light, heat, and power.
 - (3) Repairs and maintenance.
 - (4) Depreciation.
 - (5) Insurance.
 - (6) Taxes.
 - (7) Superintendence.
 - (8) Manufacturing supplies.
 - (9) Other overhead.

(Notes on system in use.)

2. Trading Costs:

- (a) Beginning inventories by classes of articles.
- (b) Purchases during period (by classes) including "in freight" and handling charges.
- (c) Inventories at end of period (by classes).
- (d) Cost of sales (by classes and departments).

SELLING EXPENSES

1. General Sales Office Expenses:

- (a) Sales manager's salary and expenses.

- (b) Selling department salaries and expenses.
- (c) Portions of general expenses chargeable.
 - (1) Telephone and telegraph.
 - (2) Postage.
 - (3) Depreciation, insurance, and taxes on portion of office building and office furniture and fixtures.
 - (4) Light, heat, etc.
 - (5) Depreciation or loss of samples.
 - (6) Office stationery and supplies.
- (d) Miscellaneous.
- 2. Road Selling Expenses:
 - (a) Salaries of road salesmen.
 - (b) Expenses of road salesmen.
 - (c) Segregation of expenses by territories or by salesmen to be used as a basis for estimating selling costs of sales made in territories or by each salesman.
 - (d) Sample expense.
- 3. Branch Selling Expenses:
 - (a) Salary of branch manager.
 - (b) Salaries and expenses of branch salesmen.
 - (c) Office expenses of selling branch (including rents or depreciation, taxes, and insurance if building is owned by company).
 - (d) Portion of general selling office expense (if prorated).
 - (e) Portion of advertising expense.
 - (f) Total branch selling expenses (related to branch sales accounts).
- 4. Advertising:
 - (a) By catalogs.
 - (b) Newspapers and periodicals.
 - (c) Billboards.
 - (d) Advertising material placed with salesmen or branches.
 - (e) Advertising expense related to various classes sold.
 - (f) Territorial advertising.

(Advertising costs generally should be related to sales by types of product, to territories, and to mail order sales).

ADMINISTRATION EXPENSES

- 1. Executive Salaries (by departments).
- 2. Clerical Salaries (by departments).
- 3. General Office Expenses (by departments).
 - (a) Postage.
 - (b) Telephone and telegraph.

- (c) Office supplies and stationery.
- (d) Depreciation, insurance, and taxes on portion of office building and furniture and fixtures.
- (e) Light, heat, etc.
- (f) Miscellaneous.
- 4. Credit and Collection Expense:
 - (a) Salaries.
 - (b) Expenses.

INTEREST AND DISCOUNT

- 1. On Loans:
 - (a) On account of loans discounted.
 - (b) On demand loans.
 - (c) Total interest paid or accrued (to be tied up with Notes Payable Account).
- 2. On Bonds (to be related to Bonds Payable Account).

It is far from our intention to propose the foregoing outline either as all-inclusive or as adaptable to every type of business. Our object has been merely to suggest the wide range of possibilities in connection with the analysis of a few representative accounts such as may be found in almost any manufacturing, retail, or wholesale establishment. Analysis is necessary. Without it the auditor cannot prepare an intelligent statement of a concern's operation nor can he interpret the tendencies of these operations. Analysis also reveals the errors in the classifications and uncovers many items which were either intentionally or unconsciously buried; it indicates the errors of commission and of principle. As a mechanical feature, the analysis of the accounts does away with the need of verifying the ledger footings, for the sum of the various segregations appearing in the analysis should agree with the ledger footings.

The auditor will find the use of thirteen-column or even larger analysis paper very convenient and adequate. The essence of the analysis is primarily to show the component elements of the accounts, and to bring out clearly as one total the amount which is being used by the auditor in either his balance sheet or profit-and-loss state-

ment. In other words, the analysis of each account should tie up with the figures used in the statements.

TEST YOURSELF ON ESSENTIAL POINTS

1. Explain how internal control and the classification of accounts aids in making the proper analysis of accounts.
2. Outline the steps for analyzing:
 - (a) Accounts receivable.
 - (b) Notes receivable.
 - (c) Inventories.
 - (d) Fixed assets.
 - (e) Accounts payable.
 - (f) Bonds and mortgages.
 - (g) Surplus.
 - (h) Selling expenses.
3. Name at least three advantages to be gained by analysis work.

Chapter XXIV

MECHANICAL OR DETAIL SIDE OF AN AUDIT

The mechanical work in an audit—Verification of footings, postings, and vouchers.

The mechanical work in an audit embraces the verification of footings and postings, and vouching. The extent of this detail work will naturally be determined by the condition of the accounts examined and by the systems in use.

Footings. As a rule the following books and records should be footed by the auditor or his assistants:

1. Cash book (or cash receipts record and check register).
2. Voucher register or purchase record.
3. Return and allowance records for both sales and purchases.
4. Sales journals or records.
5. General journal (if there are postings from totals).
6. General ledger accounts.
7. Accounts receivable ledger accounts.
8. Accounts payable ledger accounts (where the voucher register has not eliminated the accounts payable ledger).
9. A number of pay rolls.
10. Petty-cash record.
11. Cost records (if tied up with the general books).

It is usually unnecessary to foot all of the books included in the above-mentioned list, but fairly exhaustive tests should be made so that several months of each period will be covered.

In some instances the footings can be verified by totals and no detailed footing will be necessary. This procedure may be adopted in proving the total footings of the cash records wherever all receipts are deposited intact in the bank and all disbursements are evidenced by checks drawn on the bank assuming no irregularities. The total receipts per cash book may, in that case, be proved by the use of the following table:

Deposits per bank statements	\$.....
Deduct—Deposits credited by bank at beginning of period entered on books prior thereto . . . . .	.....
	\$.....
Add:	
Deposits entered on books during period (near end) credited by banks subsequently	\$.....
Canceled checks written back into receipts as offsets to disbursements but not issued or else not used by payee . . . . .	.....
Total receipts record footings	\$..... \$.....

The total disbursements per check register may be proved by using the following formula:

Disbursements per bank statements	\$.....
Deduct—Checks issued prior to beginning of period (outstanding at that time) cashed by bank during period (hence included in bank's statement of checks withdrawn) . . . . .	.....
	\$.....
Add:	
Checks issued toward end of period (outstanding) not cashed by bank during period but entered in check register	\$.....
Checks written but canceled prior to presentation to bank . . . . .	.....
Total check register footings	\$.....

Checking Postings. Posting is entirely confined to the ledgers, as the ledgers represent the final lodging place for all accounts of subsidiary records. The ledgers referred to are the general ledger, the accounts receivable ledgers, and the accounts payable ledgers. Postings to the general ledger come from the following records:

1. Cash receipts.
2. Cash disbursements.
3. Petty cash book (in some instances).
4. General journal.
5. Sales journal.
6. Voucher register or purchase record.

If all postings come through self-balancing records and chiefly from the totals in such records, the matter of checking these into the general ledger is quite simple and should consume little time. Where, for example, a voucher register is used to record all payables of every description and where controlling columns are used, there will probably be only a few individual postings to the general ledger. These will be only those appearing in the Sundries or the General Ledger column of the voucher register. All other postings would represent monthly totals of the various controlling account columns. Where, in contrast, general ledger accounts are charged directly from the cash book or check register or through other mediums, the amount of posting is greatly multiplied and the auditor's task of checking them much enlarged unless columnar analysis is provided.

Ordinarily, postings to the general ledger should be checked from the source entry to the ledger. In many cases, however, it may be found easier to check from the ledger to the original entry, thereby enabling one to take each account in the ledger consecutively and to check it out completely before going to the next account. Such procedure will also remove the danger of any of the office force tampering with the auditor's ticks or of ticking accounts not examined. It will only be necessary for the auditor to make a note-book memorandum of the last ledger account checked at the close of each day or whenever the ledger, being required by the client's bookkeeper, must be given up for the time being.

The postings in the accounts receivable ledgers come from the sales journals or the sales books, the cash-receipts records, and the allowance and return journals. These postings should be fully tested by the auditor. Special attention should be given to the credits for allowances and returns and to payments on account rather than for specific invoices (as already heretofore indicated). The amount of work to be done by the auditor

will here, as in almost all cases, be determined largely by the system of accounts in use and by the extent of internal control and checks.

If an accounts payable ledger is in use, the postings thereto will come from the invoices, the purchase record, or the allowance and returns journal. Where a voucher register is used and where the accounts payable ledger has been abandoned, it will be necessary for the auditor at least to test extensively the payments recorded against the vouchers and all journal adjustments which will affect both the individual vouchers and the controlling general ledger account.

Vouching. The vouching for disbursements and the examination of the vouchers have already received full consideration. It is to be constantly borne in mind that the essence of vouching is to verify the distribution, and to make sure that all payments are for the specific purposes indicated either by the payment or by the voucher, and that the check or the cash issued is to the party designated by the voucher or the bill as the case may be.

Nothing as yet has been said of certain subsidiary books, records, or even correspondence which should be drawn upon to verify entries in so-called "books of record." For example, though pay rolls appear on the voucher register for distribution, or in the cash book, they should be compared with the pay-roll books or records themselves; allowances and returns should be checked against the original authorizations, cash receipts, to a certain extent, against the remittance correspondence file, and payments, against outgoing remittance letters when not supported by a voucher system. Sales may in some instances have to be compared with shipping records, and purchases with the receiving and the storekeeper's files. General journal entries affecting general ledger accounts should be supported by the proper official's authorization or by journal vouchers which bear the proper approval. All this work is really checking

postings, for the books of record do not contain the original entries. Many important irregularities have been discovered by going beyond the books of record and by investigating the very first entries of transactions, even though these may have been in memorandum form only and were not tied up with the regular books.

TEST YOURSELF ON ESSENTIAL POINTS

1. What are the objects to be attained by footing the books and records of the company under audit?
2. Explain how you would prove the total footings of the cash records.
3. From which books of original entry do postings to general ledger accounts come?
4. Is it necessary to check all the postings and prove all the footings for each month of the year in the case of a balance-sheet audit? If not, what plan would you follow to assure yourself of the correctness of accounts?

Chapter XXV

AUDIT OF CONSOLIDATIONS

Methods of effecting consolidations—Merger—Consolidation through creation of new corporation—Case of holding company organized for control only—Goodwill in book value of stock—Stock of subsidiary purchased below par—Minority interests—Intercompany relations and accounting—Case of subsidiary company being a holding company.

Methods of Effecting Consolidations. A consolidation of corporations may be effected in a number of ways, first by merger, which does not involve the creation of a new corporation, second, by the formation of a new corporation to purchase the net assets of the other corporations, or third, by a device known as the holding company.

Merger. A merger would be effected in the following manner:

1. Corporations A, B, and C decide to consolidate, corporation A to effect the consolidation.
2. Corporation A may either purchase:
 - (a) The assets of Corporations B and C, paying therefor with shares of its capital stock.
 - (b) The capital stock of corporations B and C, in which event A also becomes a holding company.
 - (c) Either the assets or the capital stock of corporations B and C, but paying therefor in cash obtained by it from the sale of its capital stock or from other sources.

To illustrate the methods of consolidation, assume the following condensed balance sheets of Corporations A, B, and C:

	A	B	C
Assets	\$400,000.00	\$200,000.00	\$100,000.00
Liabilities	\$ 50,000.00	\$100,000.00	\$ 50,000.00
Capital Stock Issued...	200,000.00	50,000.00	30,000.00
Surplus	150,000.00	50,000.00	20,000.00
	<u>\$400,000.00</u>	<u>\$200,000.00</u>	<u>\$100,000.00</u>

Now, if Corporation A wished to acquire the net assets of Corporations B and C with shares of its capital stock, on the basis of the values indicated above, it would have to provide for an increase in its capital stock of \$150,000.00, since the net assets of Corporations B and C amount to \$100,000.00 and \$50,000.00, respectively.

After the merger was effected upon this basis, the balance sheets would appear as follows:

	A	B	C
Assets	\$700,000.00	\$100,000.00	\$ 50,000.00
Liabilities	\$200,000.00	\$ None	\$ None
Capital Stock	350,000.00	50,000.00	30,000.00
Surplus	150,000.00	50,000.00	20,000.00
	<u>\$700,000.00</u>	<u>\$100,000.00</u>	<u>\$ 50,000.00</u>

The assets of Corporations B and C are now \$100,000.00 and \$50,000.00, respectively, and these assets consist in both cases of the capital stock of Corporation A.

The assets of these corporations (B and C) are naturally reduced because Corporation A paid for its net assets. There is also a corresponding reduction in their liabilities.

If Corporation A purchased the capital stocks of B and C, no changes would appear in the Balance Sheets of the latter companies, and if Corporation A paid for the stocks in cash (assumed available in its treasury), its total assets would not be altered, although cash would be reduced and the account for the investment charged. The amount of the investment would probably equal the net worth of Corporations B and C. Ordinarily, at least, that much would have to be paid for a capital-stock purchase, provided that the companies were successful.

It might be possible also that, if Corporation A had no cash funds with which to acquire the capital stocks of B and C, it would issue and sell a sufficient additional amount of its capital stock to acquire the stocks of B and C, and its assets would then be increased by the amount

paid for this purchase and its capital stock also increased correspondingly. If Corporation A did not sell the additional stocks, the latter might be exchanged for the stocks of B and C, and again its asset and capital-stock accounts would be increased.

No changes would appear in the balance sheets of B and C irrespective of the amounts paid by Corporation A for their capital stocks. This is naturally due to the fact that the shares of stock are purchased from the stockholders of B and C. The stockholders would benefit or lose, all depending upon whether their stock brought more or less than par or than what they paid for it.

Consolidation through New Corporation. A consolidation effected through the creation of a new corporation would be formed in somewhat the following manner:

1. Corporation A is newly organized to consolidate Corporations B, C, and D.
2. Corporation A, in order to effect the consolidation, would either purchase the assets or capital stocks of Corporations B, C, and D with cash or with its shares of capital stock. The consolidating corporation, after incorporation, could:
 - (a) Sell its capital stock to the investing public, thereby putting cash into its treasury, and use the cash to purchase either the net assets or the capital stocks of the other corporations.
 - (b) Issue its capital stock in payment of the net assets of the other corporations, or in payment to the stockholders of these corporations for their shares of stock.

Assume that Corporation A sells its capital stock of \$400,000.00 at par to the public, and purchases the net assets of Corporations B, C, and D for cash at the following figures:

Corporation B	.....	\$100,000.00
" C	.....	150,000.00
" D	.....	75,000.00
		<u>\$325,000.00</u>

If these values represented the net worth of the three companies, then their balance sheets would show cash

balances as above indicated, no liabilities, and net worth equal to the cash, in each case. The net worth would be composed of their capital stock and surplus accounts. If the object of such a consolidation was to close up the business of these corporations, the cash would be used to pay the liquidating dividends to the shareholders. If the object was to finance the corporations, a consolidation created in this way would be a success for the purpose because the entire funds obtained by Corporation A for the purchase of the net assets of Corporations B, C, and D would be cash in the hands of these latter corporations.

Although Corporations B, C, and D would in such a case probably pay a rental to Corporation A for fixed properties used by them, the liquidation of the net assets into cash might afford an exceptional opportunity for business expansion. Naturally, the consent of stockholders would be necessary in a transaction of this kind. Corporation A, having raised \$400,000.00 from the sale of its capital stock, has thereby been able to distribute this money (or the part thereof needed) to the other companies as cash working capital, and has itself been able to retain \$75,000.00 thereof for a similar use.

Had Corporation A used the \$400,000.00 to purchase the capital stocks of Corporations B, C, and D, no particular benefit would have come to these corporations, because the status of their assets and liabilities would not have been affected, and the money, instead of becoming working capital, would have gone into the pockets of the individual shareholders of Corporations B, C, and D. The result would have been merely a substitution of stockholders, and Corporation A would, unless it became an operating company also, be merely a holding company.

If Corporation A had acquired the net assets of Corporations B, C, and D through its issue to them of its shares of capital stock, no working capital would have been contributed and the latter three corporations, instead of showing various assets and liabilities, would

carry as assets their individual investments in the capital stock of Corporation A. There would, of course, be no particular advantage to such a type of consolidation unless Corporation A were also an operating company, and Corporations B, C, and D expected to obtain benefits through the conversion of their net assets into the capital stock of Corporation A. It should be remembered that such a conversion would not bar these companies from operations and would, in fact, give the three of them a larger control over Corporation A, and thus, naturally, control over the net assets acquired by Corporation A from them.

Holding Company Organized for Control Only. The object of a holding company is to control, through complete or at least majority ownership of the capital stocks of various corporations, the policies and businesses of these corporations, known as subsidiaries, and to provide a convenient means of distributing the profits of these corporations to the stockholders of the holding company. A pure holding company is not an operating company and its only real assets are the stocks it owns in its subsidiaries. Therefore, the only income of a pure holding company is in the form of dividends received from the subsidiaries. As the pure holding company is not in operation it has very few expenses. There may be some of an administrative or corporate nature, but ordinarily these are negligible. The holding company receiving only dividends, in its turn, disburses these dividends in the regular way to its own stockholders.

A holding company may acquire the capital stock of the subsidiaries either by issuing its own stock therefor, or by cash purchase. If by cash purchase, the holding company would naturally first have to sell its own capital stock for cash and then use the latter to purchase the capital stock of the subsidiaries. If the holding company acquires the subsidiaries' capital stock through the issue of its own shares, the stockholders of the subsidiaries

become stockholders of the holding company, whereas, if the holding company sells its capital stock in order to secure cash for the purchase of the subsidiary corporations' stock, the stockholders of the holding company would in all likelihood be an entirely independent group. It may be said, therefore, that the procedure in these particulars is largely determined by the objects of those seeking consolidation.

When a consolidation is fully effected it is quite simple to understand that a single large unit has come into existence and has supplanted, from the proprietorship standpoint, a number of formerly independent units. Therefore, operations between units, which were previously separate, really become internal operations, and interunit claims are really not claims at all, since it is quite impossible to conceive of an individual concern (the consolidation) having claims against itself or owing money to itself. Investments of one unit in the capital stock of others also "wash out."

In preparing a consolidated Balance Sheet, a statement must first be prepared showing in columnar form the balance sheets of all the units, and in this statement the necessary eliminations must be made. The simplest process of elimination is found in connection with consolidated balance sheets based upon the existence of a pure holding company.

Ordinarily, in a process of consolidation, the capital stock of the subsidiary companies could not be acquired at par, especially if the companies showed a considerable surplus. However, the excess paid by the purchasing corporation does not necessarily represent a direct purchase of surplus. It measures the value of the capital stock in excess of par which in turn may be said to measure, in a limited sense, the earning power of the subsidiaries. We say "in a limited sense," because the surplus of a corporation is not fully representative of earning power. The surplus is merely undistributed earnings which may