THE JOURNAL OF ACCOUNTANCY

MARCH, 1920

VOLUME XXIX

CONTENTS

Municipal Accounts  CLARENCE E. ALBERTSON, Harriman, Tenn.  George Rea
Unsold Goods and the Income Account  William B. Gower
Accounting for a Cast Iron Pipe Foundry  A. Karl Fischer
Accounting for Railroad Construction  George M. Hofford
Accounts of a Paper Box Factory  Thomas J. Shannon
Appraisals and their Relation to Accounts  Lester G. Hawkins

Editorial
Income Tax Department
Students' Department

Issued Monthly by
THE RONALD PRESS COMPANY, Publishers
20 VESEY STREET, NEW YORK, N. Y.
Entered as Second Class Matter, Feb. 7, 1916, at the Post Office at New York, N. Y.,
Under the Act of March 3, 1879.
Copyright, 1920, by The Ronald Press Company

This Magazine Does Not Employ Subscription Canvassers
American Institute of Accountants

Board of Examiners

Spring Examinations, 1920

The spring examinations of the American Institute of Accountants will be held May 18 and 19, 1920. Arrangements for written examination can be made wherever six or more applicants desire to be examined.

Oral examinations will be conducted in New York, Chicago, Boston and at a point on the Pacific Coast yet to be selected.

Applications may be filed at any time prior to April 16, 1920.

For blanks and full particulars address,

The American Institute of Accountants
1 Liberty Street, New York
Illinois Examination Honors to Walton Students

The winners of the gold and silver medals in May, 1919, Illinois C. P. A. examination were Walton students. Twelve out of the thirteen Walton trained men who took the examination passed.

This is the sixth time in the last six years that Walton students have won first honors in Illinois C. P. A. examinations.

For three successive years they have received highest average markings in American Institute examinations.

For two successive years they have stood first in Chartered Accountants' Tests of Alberta, Canada.

Results count!

Large Corporations such as the New Jersey Zinc Co., of New York, the Firestone Tire & Rubber Co., of Ohio and the Standard Oil Co., of California have taught Walton courses to hundreds of their employees.

Walton courses have been endorsed by adoption in a full score of the leading universities.

Leading members of the accounting profession have chosen this school to train their employees, and even their sons.

**Correspondence Instruction**

We offer by correspondence the accounting and law course which trained the men who won these honors and prizes—the courses endorsed by these educational, professional and business authorities.

**Chicago and New York Evening Schools**

For full information and bulletin in regard to resident instruction address Warren J. Avery, Secretary, 374-384 Peoples Gas Building, Chicago, or Harold Dudley Greeley, C. P. A., Resident Manager, 734 Singer Building, New York City.

"The Walton Way to a Better Day," our new book, is of vital interest to every man who looks forward to a bigger success. Write for it today.

**WALTON SCHOOL OF COMMERCE**

Seymour Walton, A. B., C. P. A., Dean
374-384 Peoples Gas Bldg. Chicago, Illinois

When writing to advertisers kindly mention THE JOURNAL OF ACCOUNTANCY
It takes 5,000 houses to shelter the workers who make up-to-date National Cash Registers

These 5,000 houses are the homes of more than 25,000 people—a city in itself.

They are good homes, too, because the workers at the N. C. R. factory are intelligent, skilled mechanics who are able to demand exceptionally good living conditions.

The factory in which they work comprises 21 modern buildings, providing over 40 acres of floor space.

It has taken 35 years of the hardest kind of work to develop this tremendous organization—an organization engaged solely in the manufacture of labor-saving machines that help merchants all over the world.

The National Cash Register Company
Dayton, Ohio
Offices in all the principal cities of the world

When writing to advertisers kindly mention The Journal of Accountancy
## CONTENTS FOR MARCH, 1920

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Accounts—Their Preparation and Audit</td>
<td>161</td>
</tr>
<tr>
<td>By George Rea</td>
<td></td>
</tr>
<tr>
<td>Unsold Goods and the Income Account</td>
<td>171</td>
</tr>
<tr>
<td>By William B. Gower</td>
<td></td>
</tr>
<tr>
<td>Accounting for a Cast Iron Pipe Foundry</td>
<td>180</td>
</tr>
<tr>
<td>By A. Karl Fischer</td>
<td></td>
</tr>
<tr>
<td>Accounting for Railroad Construction</td>
<td>191</td>
</tr>
<tr>
<td>By George M. Hoeford</td>
<td></td>
</tr>
<tr>
<td>Accounts of a Paper Box Factory</td>
<td>198</td>
</tr>
<tr>
<td>By Thomas J. Shannon</td>
<td></td>
</tr>
<tr>
<td>Appraisals and their Relation to Accounts</td>
<td>206</td>
</tr>
<tr>
<td>By Lester G. Hawkins</td>
<td></td>
</tr>
<tr>
<td>Editorial:</td>
<td></td>
</tr>
<tr>
<td>Investments in Foreign Securities</td>
<td>210</td>
</tr>
<tr>
<td>Labor and Capital</td>
<td>212</td>
</tr>
<tr>
<td>Differences of Opinion</td>
<td>214</td>
</tr>
<tr>
<td>Income Tax Department</td>
<td>215</td>
</tr>
<tr>
<td>Students' Department</td>
<td>223</td>
</tr>
<tr>
<td>Edited by Seymour Walton</td>
<td></td>
</tr>
<tr>
<td>Book Reviews</td>
<td>237</td>
</tr>
</tbody>
</table>

THE JOURNAL OF ACCOUNTANCY is the organ of the professional accountants of the United States. In its articles and editorial columns it treats, from the accountant's point of view, of business problems and conditions.

The editor will be glad to receive and to consider for publication articles from well-informed persons, and will welcome especially contributions from public accountants. The manuscripts of articles not available for publication will be returned on request.

Change of address must be received by the publishers on or before the 20th of the month preceding the issue you wish sent to the new address.

If you fail to receive your copy of the magazine for any month, notify the publishers during that month. Otherwise they cannot be expected to supply you with a duplicate copy.
Authors of Articles

IN THIS ISSUE OF

THE JOURNAL OF ACCOUNTANCY

George Rea

William B. Gower
Member American Institute of Accountants. Certified Public Accountant (Montana).

A. Karl Fischer
Member American Institute of Accountants. With Lybrand, Ross Bros. & Montgomery, Philadelphia.

George M. Hofford
Member American Institute of Accountants. Certified Public Accountant (Texas).

Thomas J. Shannon

Lester G. Hawkins
With Cooley & Marvin Co., Boston.
Pelmanism is the biggest thing that has come to the United States in many a year. With a record of 103,000 successes in England this course in mind training has been Americanized, and is now operated by Americans in America for American men and women. Pelmanism is neither an experiment nor a theory. For twenty years it has been teaching people how to think; how to use fully the powers of which they are conscious; how to discover and to train the powers of which they have been unconscious. Pelmanism is merely the science of thinking; the science of putting right thought into successful action; the science of that mental team play that is the one true source of efficiency, the one master key that opens all doors to advancement.

I heard first of Pelmanism during a recent visit in London. Its matter filled pages in every paper and magazine and wherever one went there was talk of Pelmanism. "Are you a Pelmanist?" was a common question. It was T. P. O'Connell who satisfied my curiosity and gave me facts. By 1918 alone there were 400,000 Pelmanists, figuring every man in every country and condition of life. Lords and ladies of high degree, clergymen and cooks, members of Parliament and actors, farmers, lawyers, doctors, coal miners, soldiers and sailors; even generals and admirals, were all Pelmanizing. Heads of great business houses were actually enrolling staffs in the interest of larger efficiency.

The polytechnic Sir F. Maurice, describing it as a "system of mind drill based on scientific principles," urged its adoption by the army. General Sir Robert Baden-Powell and Admiral Lord Beatty endorsed it over their signatures. In France, Flanders and Italy over 100,000 soldiers of the empire were taking Pelmanism in order to fit themselves for return to civil life, and many members of the American Expeditionary Force were following this example.

As a matter of fact, the thing had all the force and sweep of a religion. It went deep into life, far down beneath all surface emotions, and bedded its roots in the very centers of individual being. It was an astonishing phenomenon, virtually compelling my interest, and I agreed gladly when certain members of Parliament offered to take me to Pelham House. A growing enthusiasm led me to study the plan in detail, and it is out of the deepest conviction that I make these flat statements:

Pelmanism can, and does, develop and strengthen such qualities as will power, concentration, ambition, self-reliance, judgment and memory.

Pelmanism can, and does, substitute "I will" for "I wish" by curing mind-wandering and wool gathering.

Viewed historically, Pelmanism is a study in intellectual growth. Twenty years ago it was a simple memory training system.

The founder of Pelmanism had an idea. He went to the leading psychologists of England, and also to those of America, and said: "I have a good memory system. I think I may say that it is the best. But it occurs to me that there is small point in memory unless there's a mind behind it. You gentlemen teach the science of the mind. But you teach it only to those who come to you. And few come, for psychology is looked upon as 'highbrow.' Why can't we popularize it? Why can't we make people train their minds as they train their bodies? Why can't you put all that you have to teach into a series of simple understandable lessons that can be grasped by the average man with an average education?"

So the eminent professors did it? Pelmanism to-day is the one known course in applied psychology, the one course that builds mind as a physical instructor builds muscle. It teaches how to develop personality, how to build character, how to strengthen individuality. Instead of training memory alone, or will-power alone, or reasoning power alone, it recognizes the absolute interdependency of these powers and trains them together.

It is not, however, an educational machine for grinding out standardized brains, for it realizes that there are wide differences in the minds and problems of men. It develops individual mentality to its highest power.

The course comes in twelve lessons and is called 'Little Gray Books.' These are sent out at a time and the student fills out work sheets that are gene over, with pen and ink, by a staff of trained instructors. There is nothing arduous about the course, and it offers no great difficulties but it does require application. Pelmanism has got to be worked at.

You can take a pill for a sluggish liver but all the patent medicines in the world can't help a sluggish mind. Pelmanism is not a 'pill' system. It proceeds upon the scientific theory that there is no law in nature that condemns the human mind to permanent limitations. It develops the mental faculties by regular exercise, just as the athlete develops his muscles.

Pelmanism is the science of Get There—getting there quickly, surely, finely. Not for men alone, but for women as well. Women in commercial pursuits have the same problems to overcome as men. Women in the home are operating a business, a highly specialized, complex business, requiring every ounce of judgment, energy, self-reliance and quick decision that it is possible to develop.

I say deliberately, and with the deepest conviction, that Pelmanism will do what it promises to do.

Talk of quick and large salary raises suggests quackery, but with my own eyes I saw bundles of letters telling how Pelmanism had increased earning capacities from 20 to 200 per cent. With my own ears I heard the testimony of employers to this effect. Why not? Increased efficiency is worth more money. Aroused ambition, heightened energies, refuse to let a man rest content with 'weakened' growth.

But Pelmanism is bigger than that. There's more to it than the making of money. It makes for a richer and more wholesome and more interesting life.

GEORGE CREEEL

Note: Pelmanism is taught entirely by correspondence. There are two lessons in "Little Gray Books." The course can be completed in three to twelve months, depending entirely upon the amount of time devoted to study. Whichever may have been your experience with other courses, Pelmanism will help you.

'Mind and Memory' is the name of the booklet which describes Pelmanism down to the last detail. It is fascinating in itself with its wealth of original thought and incisive observation. It has benefits of its own that will make the reader keep it. It is free. Use the coupon or a postcard and send for it now—TODAY.

PELMAN INSTITUTE OF AMERICA
Suite 379, 505 Fiftth Ave., New York, N. Y.

PELMAN INSTITUTE OF AMERICA
Suite 379, 505 Fiftth Ave., New York, N. Y.

Please send me, without obligation, your free booklet, "Mind and Memory."

Name
Address

All correspondence strictly confidential. J. A. M.
Thorough Preparation Is Essential To Success

It is just as true in business as in any other field of endeavor, that a person must be thoroughly and carefully trained in order to reach the final goal—success.

NEW YORK UNIVERSITY
SCHOOL OF COMMERCE
ACCOUNTS and FINANCE

has enjoyed wonderful success in training men and women to cope with the intricate problems of the business world. Complete courses are being offered in Accounting, Advertising and Marketing, Finance, Management, Journalism, Foreign Trade as well as a large number of special courses.

Registrations are accepted twice each year; for the fall term beginning in September and the spring term beginning in February.

A copy of the regular bulletin will be sent you upon application to the SECRETARY.

32 Waverly Place
New York City

Yes—the bank employee works fast!

His first name is speed—his middle name is accuracy—his business name is (or should be) legibility.

He needs a mighty capable pencil. He gets it! More real good bank men use Dixon’s Eldorado than any other pencil we know of.

DIXON’S
ELDORADO
"the master drawing pencil"

SAMPLE OFFER
Tell us the kind of work you do, and we will mail you full-length samples of your favorite leads. Also write for interesting pencil booklet—“Finding Your Pencil.”

JOSEPH DIXON CRUCIBLE CO., PENCIL DEPT. 117-J, JERSEY CITY, N. J.
Canadian Distributors:— A. R. MacDougall & Co., Ltd., Toronto

When writing to advertisers kindly mention THE JOURNAL OF ACCOUNTANCY
A Really Helpful Book

Here is a Practical Manual for the Development of a Forceful and Progressive Business Individuality

Developing Executive Ability

By Enoch Burton Gown
Assistant Professor of Commerce, New York University
School of Commerce, Accounts and Finance. Author of "The Executive and His Control of Men," Etc., Etc.

The development of one's own personality as a business enterprise, with its ideal of first-class management, and its problems of production, sales, finance, etc., is an intensely practical conception. The qualities which have elevated many to leadership in the business world exist in a greater or less degree in every man. Only by means of careful training and development can they be brought to their maximum productivity and profit.

This manual closely links together the ideal and the practical and shows how progress toward the ideal may be made by intensely practical methods. It points out how to become a master of details and how best to develop such characteristics as, Ability to Plan, Initiative, Will, Vision, Reasoning Power, Control of Affairs, Personal Dynamics, Personal Finance, Teamwork, Co-operation, etc. The intellectual preparation for a wide sphere of usefulness is interestingly handled. It also contains a comprehensive bibliography of helpful business books.

"Developing Executive Ability" is written in a non-technical way and is interesting as well as instructive. It contains numerous exercises, illustrations, and test charts, that enable the student to make a definite application of the principles and methods. In its glimpses of the opportunities of the present and the future, it is not merely encouraging but distinctly inspiring in a decidedly practical way.

EXAMINE IT FREE

"Developing Executive Ability" is substantially bound in blue Ronald cloth and contains 500 pages. We will gladly send it to you for examination. You can look it over for five days and then at the expiration of that time either return it to us or remit the price, $4.00. Use the Coupon.

How It Builds Your Personal Equipment for Executive Work

The ability to handle routine tasks or minor details, and to select subordinates who will handle them effectively.

How to work systematically.

How to select equipment that will facilitate work.

How to organize, deputize, and supervise.

A serviceable memory.

The ability to plan and to carry the plan through.

To devise and utilize short-cuts to accomplishment.

Habits that are helpful and not hindrances.

Mental alertness.

Practicality.

Reasoning power.

Accuracy in judgment.

Independence in thinking.

Initiative.

Control, either through statistics or graphic presentation.

Will power.

How to economize mental and physical energy and to maintain health.

Habits of thrift.

How to deal with legal problems.

How to handle financial problems.

How to get along with others.

How to prepare yourself intellectually for leadership.

How to see yourself in terms of the future and to work toward that goal.
HUNDREDS OF PRACTICING ACCOUNTANTS ARE GIVING VANNAIS TRAINING THE HIGHEST ENDORESEMENT POSSIBLE BY TAKING THE TRAINING THEMSELVES.

At the present time, over 500 professional accountants in New York City are preparing for their C. P. A. examination under our guidance.

These men are discriminating, and are busy. They have no time to waste. Vannais training appeals to them strongly because they know that "SERVICE" is not a mere catchword with this Institution, but is a STANDARD, lived up to in every sense of the term.

Our letters of instruction are clear and are especially prepared for use by the correspondence method.

Special attention is given to each student's individual needs and requirements.

Necessary detail receives careful attention, but all matter not having a direct bearing on the progress of the student is eliminated.

Our criticisms and suggestions have for their aim the development of the analytical and constructive mind essential to the competent accountant.

Each student is furnished accounting and law manuals by

**Esquerre Conyngton Montgomery Crane**

**Nicholson-Rohrbach**

Directed reference to these books assures the student that the knowledge he is acquiring comes from the most authoritative source.

Those appreciating real results find that Vannais training is ideal in assisting them to reach, successfully, their goal of accomplishment.

WE DO NOT ACCEPT STUDENTS WHO ARE NOT WELL GROUNDED IN BOOKKEEPING.

The Vannais Accounting Institute, Inc.
HARTFORD, CONN.

150 Nassau Street 100 Boylston Street
New York City Boston

When writing to advertisers kindly mention THE JOURNAL OF ACCOUNTANCY
Municipal Accounts—Their Preparation and Audit*

By George Rea

Notwithstanding the regulations and restrictions surrounding municipal affairs, up-to-date accounting methods may be employed as readily as in private business. These regulations will be found to be matters of administration more often than of accounting, dealing with the transactions rather than with the records.

He who undertakes to prepare a system of accounts for a municipality or to audit them must be thoroughly familiar with all the laws governing its financial transactions. These laws are found in the statutes, in the charter under which the municipality is organized (whether it be general or special) and in its ordinances. Many regulations are most annoying because of an overreaching and unintelligent effort to safeguard the city’s money. But a careful survey will enable the accountant to provide a simple and efficient system of accounts and at the same time to meet the legal requirements.

A literal interpretation of all the laws affecting accounts would require a vast amount of duplication of records. Too often the statutes are the heritage of olden days when the transactions were few and modern business methods were not known. In one state laws are yet in effect which were enacted when the treasurer honored warrants by paying cash. Although later laws have been passed permitting him to deposit the city’s money in bank, the original acts remain in force requiring him to keep records duplicating those of the city clerk.

In this paper more particular attention is paid to the require-

* A thesis presented at the November, 1919, examinations of the American Institute of Accountants.
The Journal of Accountancy

ments of small municipalities. The same principles would be applied in the largest cities, the records being adapted to the larger volume of business.

Practical independence is sometimes granted to certain boards and commissions, which will cause endless confusion if they are allowed to exercise their privileges without limit. Arrangements should be made to have their financial transactions recorded in the city accounts.

Records

In a small municipality the clerk may be the bookkeeper. In a large city the comptroller's department is the accounting department. Between these extremes the books should be kept by one or more deputies under the direction of the city clerk. In all cases some person should be made responsible for the accuracy and completeness of the general accounts and should verify the accounts of deputies and officers handling money and keeping department records.

In the general ledger the accounts should be grouped in the usual classes—assets, liabilities, expenses and income, arranged in each class in a logical order. Expenses should be subdivided by departments. A numerical system of designating accounts can be employed with advantage. It should be arranged to permit new and special accounts to be opened in each class and subdivision, maintaining unity and logical order.

The form of cashbook will depend upon the methods employed in handling receipts. In a small town where the clerk is de facto collector of taxes, licenses, fees, water bills, etc., a column should be provided for each class of income. In larger cities each department should keep a cashbook and make periodical settlements, a summary of the transactions in each period being entered in the general records as a charge to the treasurer. In this case the clerk's cashbook need not be so elaborate, as the entries will be comparatively few.

Absolute control should be maintained over every officer receiving cash by requiring him to issue a carbon duplicate receipt. Licenses and permits at predetermined rates may be made self-recording receipts by providing them with stubs similar to those on post-office money orders. The clerk or a deputy should verify

162
Municipal Accounts—Their Preparation and Audit

each department's collections from the amounts shown on the
duplicate receipts or stubs.

A municipality's money is divided into funds, from each of
which only certain classes of expenditures may be made. This
is intended to limit the expenditures in each class, but it is
nullified by the power granted to the governing body to transfer
money from one fund to another at will. These funds are in
effect several bank accounts. Corresponding accounts should be
opened in the general ledger, and provision should be made in
the cashbook to determine readily what moneys are to be deposited
in each fund.

Distribution of receipts to the several funds is determined by
the tax levy and ordinances. With taxes this is generally so in-
volved a process as to forbid the distribution of each item. If
only one depository is maintained and the clerk keeps a complete
cash record, one distribution may be made of the month's total
collections; or the clerk may deposit in a special account which
will be transferred to the treasurer at the end of the month. If
funds are low and demands are pressing, the distribution may be
made more often.

While designated by other names, the instruments employed
in municipal transactions are the same as those in private busi-
ness. Demands or claims are purchase and expense invoices. Warrants are cheques on the depository banks or drafts on the
treasurer.

Claims should be approved by the purchasing department, if
there be one, or by the head of the department incurring the ex-
 pense, and sent immediately to the accounting department to be
recorded. The claims register may be used as a distribution
record by providing double columns (for name or number of the
account and amount) for each department and for sundry ex-
pense. At the end of the month the charges in each column may
be summarized and totals of each account may be posted to the
ledger. In another column should be entered the number of the
warrant drawn in payment of each claim.

The monthly total of the claims is credited to claims payable
account, against which are debited the warrants drawn. Thus the
claim and claims register correspond respectively to voucher
and voucher record. As many municipalities require claims to
be filed on the city's forms, duplicate claims may be used with all the advantages of the duplicate voucher system.

In the warrant register a column should be provided for each fund (funds with infrequent transactions may be handled through a sundry column) corresponding to the several bank columns in the cheque register, a debit column for the charge to claims payable and a column for claim numbers. If discounts are not deducted when the claims are entered, a discount column also is needed. The balances in bank or in the treasurer's hands should be reconciled in the same manner as a bank account.

The accounts should be kept on an income and expense basis. Unless the city is so fortunate as to be able to pay all expenses incurred, a condition which circumstances may alter at any time, receipts and disbursements accounts cannot give the information needed to manage the city's affairs efficiently. Therefore, the claims register should be held open until all the month's expenses are recorded, claims of the following month being entered on another page.

But these records will not accumulate the data for reports which some state comptrollers require to be made on a receipts and disbursements basis. If such a report is required, a second record should be provided similar to the claims register, in which the segregation of expense accounts will be made from the disbursements. It should be understood that this record is for a special purpose and is not to be confused with the regular books of account.

It is suggested that accountants who have municipal clients urge the state officers to permit reports to be prepared on an accrual basis.

The ordinary two-column journal usually will be found adequate for most municipalities.

The records to be kept by the treasurer will depend upon the methods employed in handling the city's funds. The clerk's records should be so kept that the balance in each fund may be known at any time; and no warrant should be drawn if there is not a sufficient balance to pay it. No special record then need be kept by the treasurer if the money is deposited in banks. But if warrants be drawn regardless of the condition of the funds, the treasurer must keep complete records of all deposits and with-
Municipal Accounts—Their Preparation and Audit

drawals, that he may know when a fund is depleted and refuse payment on warrants drawn thereon.

Income

The income of a municipality is derived principally from taxes. The records and procedure for levying and collecting them are prescribed by law. As seventy-five per cent or more of each levy is collected in the few days immediately preceding the delinquent date, numerous errors result from the volume of work handled in a brief period—and usually with inadequate records.

Within the limits allowed by the statutes, the tax roll should be prepared so that each taxpayer and each piece of property can be located readily and the amount of taxes determined at a glance and not be confused with other items. Space should be provided for the date, number of receipt issued and amount of tax paid. The roll thus may be used as a subsidiary ledger, with a control account in the general ledger. If the roll is large, it should be subdivided into two or more sections, alphabetically or geographically, with corresponding control accounts in the general ledger and columns in the cashbook.

The tax roll should be reconciled with the control accounts as carefully as any subsidiary ledger. The word "reconciled" is used instead of "balanced," as errors will occur in the collection of taxes. Overages should be refunded and shortages collected. The latter is not impracticable, even for small amounts, as an unpaid portion of the tax is as much a lien on the property as the whole assessment.

The method of handling receipts from licenses and permits has been described in relation to the cashbook.

If the city owns its waterworks or other public utility for which a charge based on the service rendered is made, an accounts receivable ledger should be provided with a control account in the general ledger. Postings should be made from the meter or other service record. The bills should be made from the same record independently of the ledger postings. Adding machine lists of the bills and of the postings should be compared to detect and correct errors. A special column should be provided in the cashbook for each service ledger.

165
Expenses

As suggested in the description of the general ledger, the accounts should show the expense of each department. The extent to which they are subdivided will be determined by the volume of business, by the importance of the work of each department and by the wishes of the governing body and of the department heads. The general subdivisions of salaries, wages, office supplies and expenses, department operating supplies and expenses, repairs and special expenses are suggested. Any one may be further divided as desired.

General administration expenses may be treated as a separate department. Among its special expenses will be interest on the bonded debt.

Capital expenditures should be carefully segregated from operating expenses. Perpetual inventories should be maintained, as the property and equipment are distributed among many persons, who are required by statute to account for them but seldom do so systematically and satisfactorily.

Bonded Debt

In the case of bonded debt the initial entry will be a cashbook credit of the par value of the bonds to bonded debt account and another credit to premium on bonds sold. If they are sold at a discount a journal entry charging discount and crediting bonds is needed to complete the record. When a bond is redeemed, its par value should be charged to the bonded debt account, premium or discount if any being charged or credited to the revenue account.

A liability for interest on bonded debt should be set up by journal entry on the date when the interest is payable, and coupons as paid should be charged to this account.

If the city's money is deposited, arrangements should be made with the banks not to charge maturing bonds and coupons against the balance on hand, but to present them to the clerk, that a claim and warrant may be recorded. Unless this is done, not only will the clerk be unable to show in his records the exact balance, but the record of payment of bonds and coupons will be deficient and probably impossible of later verification.
Municipal Accounts—Their Preparation and Audit

Reports

If the accounts in the general ledger are properly classified and arranged, a trial balance can be taken in the form of a monthly report. Often the only additional data required will be the total receipts and disbursements in each fund, the tax collections and the increase in each revenue account to show the income and expenses of the month.

Audit

Under existing conditions in municipal government, it is reasonable for the accountant to assume that there is no adequate check on the transactions, and that he can be more than ordinarily suspicious of the records he is about to examine. Or to state it more conservatively, he cannot accept a transaction as regular because it would be such in private business. The officers feel so handicapped by their restrictions that they constantly seek methods to evade them. Many municipal audits are authorized solely for the purpose of having an auditor’s report to which an appeal may be made in case an officer’s record is attacked. The necessity for an accountant to be absolutely sure of his position in a municipal audit cannot be emphasized too strongly.

The computation of taxes and the footings of the tax roll can be proven by multiplying the total assessed valuation by the tax rate, the product equaling the total taxes. Compensating errors may be detected by making a like computation at every fifth or tenth page, or each page may be proven if an absolute verification is desired. Fractions will cause small differences in the footing of each page, but may be disregarded unless they exceed an amount previously determined as an allowable difference.

The accountant, of course, will refer to the ordinance or resolution levying the tax to see that the proper rate has been applied and will note also that it is within the statutory or charter limit.

The cash collected, less penalties, plus the delinquent taxes must equal the original roll. The delinquent roll must include also penalties and costs. The accountant will be fortunate who has not to check all transactions, for the methods employed produce errors and many adjustments may be required. If a complete check is not to be made, a thorough test should be given, having in mind the possibility that a forced balance or reconciliation has been made by the collector.
The Journal of Accountancy

The allocation of the cash to the several funds, as set forth in the ordinance, must be verified.

Redemption of delinquent taxes presents its own problem, varying with the community. The amount of the tax originally assessed and the penalties and the costs, as stated in the certificate of redemption, must be compared with the corresponding items in the delinquent roll.

Interest and penalties often are cumulative. The rates must be those prescribed by statute or ordinance. Computations should be tested thoroughly and all should be verified if many errors are found. A careful investigation must be made of the method of recording redemption in the delinquent rolls. If the ledger does not contain a control account for each tax year, it may be necessary to go through all the rolls to determine if all redemptions have been included.

Delinquent taxes being a part of the income provided for previous years, the receipts from their redemption must be applied to the liquidation of unpaid expenses of those years, if any exist, before they can be applied to current expenses.

For franchise taxes based on the gross income of a public utility there probably will be found the corporation's statement. If this can be compared with published reports, or access can be obtained to the financial statement usually available to bankers and brokers, such comparison should be made.

When examining the income from licenses and permits, it is not enough merely to account for the fee. Officers often content themselves with issuing these documents as application is made for them, instead of compelling all licensees to renew their privileges at the stated periods. Annual licenses issued during the year may be compared with those of the previous year. Quarterly and monthly licenses may be tabulated. Omissions should be investigated carefully. The fee for each class of license and permit should be compared with the ordinance.

If it is specified that receipts from a particular source of income or any part thereof shall be available for certain expenditures, it must be seen that such receipts have been deposited in the proper funds.

Miscellaneous income must be treated similarly, the exact method depending upon its nature and source.
Municipal Accounts—Their Preparation and Audit

A source of income frequently overlooked is interest on deposits, both ordinary and special. In some states banks are required to pay interest on daily balances under a penalty against both banker and treasurer.

Transfers of funds may be made by warrant or by journal entry. In either event the only matter of interest to the accountant is that each transfer shall have been duly authorized.

In the examination of claims, the questions to be answered are these: Have they been approved by the proper authorities? Are they proper expenditures from the funds from which they were paid (this is even more important than the question whether or not the warrant was drawn on the fund specified on the claim)? Was the expense incurred within the year in which this fund received its income?

Another point worthy of attention is the amount of the claim. Some charters fix a limit beyond which a purchase can be made or an expense incurred only by action of the council after due advertisement. Many ingenious methods are employed to nullify this regulation. In a city allowing a maximum of five hundred dollars, the purchasing department placed a standing order for daily delivery of cement over a period of weeks and arranged with the seller to render bills in amounts of five hundred dollars each. These bills were duly passed by the construction and purchasing departments, approved by the council and a warrant for five hundred dollars was drawn for each.

In addition to examining the warrants in the verification of the treasurer's balance, each must be compared with the claim which it pays to see that the amount is correct and that it is drawn on the proper fund.

The utmost care must be taken to detect double payment of bonds and coupons. If the officers and deputies are not careful in handling these, they may fall into unauthorized hands and be presented for payment a second time. If each bond and coupon can be identified from the record of its payment, all should be checked in detail and payment of an item maturing in a previous year should be investigated until the accountant is assured that the transaction is regular. If there is no identifying record, the total interest and principal payments on each series of bonds and the unpaid matured items must be determined and then be com-
pared with the liability accruing for the year. Should a discrepancy exist, like details for one or more preceding years must be determined, until a reasonable reconciliation is obtained. But in his report the accountant must be careful to show the inadequacy of records which do not identify every payment of money.

Special assessments for lighting, sewers, paving, etc., must be treated as the ordinances and circumstances may determine. In some cases these funds are handled by the treasurer or other officer in a trust capacity, and the cities have no direct control over them. Should their examination not be included in the accountant’s engagement, he nevertheless should satisfy himself when verifying the regular municipal funds that the trust funds were not employed to cover shortages.

In conclusion it may be stated that a reasonable assurance of the accuracy and completeness of municipal accounts amounts almost to what would be an absolute verification of a private business.
Unsold Goods and the Income Account

By William B. Gower

Since December, 1917, we have been required by the treasury regulations in ascertaining the net income of a given year to value all inventories of supplies, materials, finished or partly finished goods, unsold merchandise, etc., on one or other of two alternative bases, namely, (a) at cost or (b) at cost or market price, whichever is the lower. The far-reaching character of this requirement and the many questions involved in accepting it as sound accounting doctrine merit more attention than they have received so far.

It is intended to restrict the discussion to accounts which are kept on the basis of accruals of cost and income, and to disregard those which are kept on the basis of actual cash receipts and expenditures. Most businesses which handle commodities keep their accounts on an accrued basis, and the accounting scheme centres around the ascertainment of accrued net revenue in terms of distinct periods. One of the important phases of this question of net revenue is the inventory of commodities. It is recognized that the necessity for taking stock of such commodities at the close of each accounting period extends beyond the mere ascertainment of quantity, for unless a value is placed upon the commodities the net revenue figure for the period cannot be determined.

It is equally well recognized that a logical and consistent basis for this valuation of inventories of goods must be adopted. This is necessary even during accounting periods when inventory quantities exhibit only slight variations and when prices and values are static. The necessity is accentuated, however, during those accounting periods in which extensive accumulations or diminutions occur in stocks on hand and during those periods in which price changes and fluctuations take place, or during which there is an abnormal spread between cost prices and selling prices. In recent years, those conditions have prevailed in many industries.

For its bearing upon the problem of inventory valuation we
The Journal of Accountancy

may classify commodities, broadly, into four or five main subdivisions, namely:

(a) Commodities purchased for resale in their original forms by merchants, traders and dealers.

(b) Goods acquired for consumption in manufacturing and productive processes, for maintenance and repairs of plant and facilities (not purchased for resale in their original forms).

(c) Goods manufactured or in process of manufacture for the general market.

(d) Goods manufactured or in process of manufacture on specific contracts.

(e) The natural products of the soil or natural resources extracted from mines, oil wells, timber lands, etc., produced in marketable form by owners engaged in operating on their own premises.

In years gone by, before the incidence of heavy taxation upon net revenue, it cannot be said that universal custom prescribed any uniform basis of valuation for the commodity classes named above, either separately or in their entirety. Custom varied according to the inclination of the owners or executives of each business enterprise, but it may be said that they usually selected one or other of the following bases of valuation: (1) original cost; (2) original cost, reduced by any shrinkage in value indicated by current market prices; (3) liquidating value, or selling prices; (4) estimated cost of replacement; and (5) value to the going concern.

This freedom in the selection of a valuation basis for inventories of commodities which existed in practice prior to the year 1917 was not encouraged or endorsed or taught by the accounting text writers. On the contrary, except for an occasional advocate for values more or less current, the text writers exhibited decided partiality for the second of the valuation rules named above—a rule which has been concisely described as "cost or market price, whichever is the lower." Nor do the text writers recognize any different valuation rule applicable to any of the classes of goods which we have noted. All are confounded in the same valuation rule, with an occasional reservation, however, as
Unsold Goods and the Income Account

to goods manufactured or in process of manufacture on specific contracts.

The position was stated officially in London on June 14, 1917, in an opinion expressed by members of certain eminent firms of accountants constituting a committee of consulting accountants, in a report to the board of inland revenue, which contained the following paragraph, afterward adopted verbatim by that board:

“All stocks of every sort or kind should be valued at the end of each accounting period on the basis of cost price or market value, whichever is the lower. The principle rests upon the theory (which is perfectly sound) that profits can only be realized by the sale of commodities and that no profits can arise by mere increase in value unaccompanied by a sale.”

The thought underlying the somewhat loose phraseology of the committee’s opinion is sufficiently evident, but is not likely to be accepted among accountants generally for several reasons.

First: it considers as a principle, and as a perfectly sound theory, the inconsistent idea that the acquirement and retention of property may imply a contemporaneous loss, but cannot imply a contemporaneous profit.

Second: it defends on grounds of principle and theory a valuation rule which rests on an illogical foundation, which originated as a practical measure to combat the formerly prevailing tendency to over-estimate profits and was adopted as an accounting expedient solely from motives of prudence and caution.

Third: it assumes that the invariable effect of this valuation rule is to prevent registration of any profit in the annual income account in regard to unsold goods. There is no such invariable effect, however, when goods are carried over during more than two consecutive years.

Fourth: it declares that a uniform valuation rule is applicable, necessarily, alike to the business of merchandising, to the business of manufacturing and to the business of producing commodities from the soil or from natural resources; applicable alike to commodities of all classes, whether acquired by purchase, by manufacture or by natural production; applicable alike whether or not the original cost of commodities has any present meaning or significance or represents more or less current values. Apparently, nothing is exempt from the rule, not even the many indus-
tries in which it is impossible to ascertain the original cost of commodities produced and the rule cannot be applied.

The general effect upon the income account which arises from applying to unsold goods the valuation rule of cost or market price, whichever is the lower, is essentially discriminatory; for it allows the registration of unrealized losses, while refusing to allow the registration of profits similarly unrealized, the basis of the figures in each case being market values. Obviously, if this market price is admitted to be an element in the situation and may be adopted to register an unrealized loss, then consistency demands that it should be adopted to register an unrealized profit. If uncertainty as to the price which will be realized ultimately for unsold goods is a valid reason against adopting the higher market value, the same uncertainty is an equally valid reason against adopting the lower market value. Uncertainty as to the ultimate price to be realized for unsold goods furnishes no more and no less justification, in logic and in practice, for registering an estimated loss in the income of a given period than it does for registering an estimated profit.

Formerly, the apologists of this valuation rule, while admitting its fundamental inconsistency and lack of sound basis, defended it solely on grounds of expediency, declaring it a precautionary measure against the danger of over-estimating profits. The valuation rule arose in times when the practice was quite prevalent of over-estimating the value of the assets, thereby over-estimating the profits; in times when the fear of profit inflation exercised a powerful influence upon the teachings and practice of accountants; in times when courts of law, desiring to protect investors, were inclined to limit the concept of commercial profits to profits which had been actually realized or to profits which were available for dividends. It was not foreseen that the time would come when the opposite tendency would involve greater and more serious abuses, through under-statement of assets and profits. In these days of high rates of taxation upon annual net income, there is not the same need for accounting expedients designed solely to prevent over-statement of profits.

The London committee, as we have seen, claims to have discovered a "principle" and a "perfectly sound theory" by which to explain the discrimination which pervades this valuation rule.
Unsold Goods and the Income Account

Unfortunately, the committee's theory is itself of dubious validity; and, further, whether valid or not, it furnishes no ground whatever for the discrimination.

For if, as the committee says, "profits can only be realized by the sale of commodities," then the converse of the proposition is equally true: "losses can only be sustained by the sale of commodities." Again, if "no profits can arise by mere increase in value unaccompanied by a sale," then it is equally correct to add: "no losses can arise by mere decrease in value unaccompanied by a sale." (Of course, we assume that no physical deterioration has occurred.) To expand the committee's theory by these logical additions is to destroy it as an explanation of the valuation rule. Incidentally, it is surprising to find the committee clinging to the old idea that a profit must be "realized" before it may be taken in the income account.

Further, the working of this valuation rule does not prevent, necessarily, the registration of profits in the income account of a given period in regard to unsold goods nor prevent the registration of "mere increase in value unaccompanied by a sale" in the income account, which the committee finds so obnoxious. For both these events would take place, in the case of goods which had been on hand for some time, when a rise in quoted prices occurred after a previous fall in quoted prices had been registered in the income account of a former period as a loss.

Having disposed of the theory of the London committee as a defense of the illogical discrimination which results from adopting the valuation rule of cost or market price, whichever is the lower, it is time to examine the merits of the theory itself. The first dictum is that, in the case of commodities, "profits can only be realized by sale." As we are not dealing with realized profits but accruals of income, we may give this phrase the benefit of amendment to read "in the case of commodities no profit may be taken into the income account until they are sold or otherwise disposed of." Even in this amended form, the doctrine is denied by high accounting authority, notably by Professors Paton and Stevenson in their exhaustive review of the subject contained in Principles of Accounting, edition of 1919, chapters X and XX. Further, in the case of commodities produced from the soil by cultivators and natural resources extracted from mines, oil wells,
timber lands, etc., by operators, the dictum of the committee is against the weight of custom and common opinion. Nor, in the case of manufactured goods which have reached their marketable form, is the dictum free from serious objection.

In regard to the second observation of the London committee—that no profits may be implied from increase in value of unsold commodities—we must assume that it refers to commodities which have not changed their original form, for the increase must refer to definite unchanged articles. Within this limitation, and so far as it involves any appreciation in value of commodities acquired and retained in their original form over the value which existed at the date of acquirement, there is no doubt that the weight of legal opinion sustains the view that accrued appreciation of property in its unchanged form should not be taken into the income account prior to its realization.

It seems to us, however, that both the advocates and the opponents of the idea that no profits or losses may be implied in respect of undeteriorated goods which have not been marketed (in other words, the advocates and the opponents of the valuation rule of original cost) are alike mistaken in seeking uniform rules for unsold goods of every sort and kind, regardless of the conditions under which the goods are acquired. It does not follow, necessarily, that the same basis of income reckoning and, consequently, the same valuation rule are applicable to (a) goods purchased for resale in their original form, or for use in manufacturing and productive processes and facilities, and (b) natural products or natural resources put into marketable form by cultivators and operators.

The valuation rule of original cost when applied to the unsold goods of traders, dealers and merchants whose business it is to purchase commodities for resale in their original form is a sufficiently workable and satisfactory rule. The objection which has been made to the valuation rule of original cost, namely, that this cost has no present significance and may not measure the true economic resource at the present disposal of the owner, loses much of its force in this case, for, as these unsold goods are usually deemed to be those most recently purchased, their cost usually represents more or less current values. By adhering to this valuation rule of original cost for the unsold goods of
traders, etc., one avoids a practice condemned by the weight of legal opinion, namely, that of taking into income an accrued appreciation in the value of property prior to its realization. Another advantage of adopting this valuation rule for this class of goods is that original cost is readily determinable in most cases; further, that it establishes a fair measure of equality and price uniformity throughout a given industry. Finally, as the spread between original cost and cost of replacement is not usually large in these cases, the argument for the latter basis of valuation becomes theoretical rather than practical.

The effect upon the income account which is reached by applying to unsold goods the valuation rule of original cost is to measure the profits or losses of a given period by the amount of sales within the period and to allot profits only to periods in which sales are consummated. In the case of traders, dealers and merchants whose business it is to purchase commodities for resale in their original form, this emphasis upon sales as the controlling factor in the accounting scheme is natural enough, for selling is the predominant feature of the merchant's business; he thinks and operates in terms of sales; his business ceases when there are no sales; and it would be unnatural for him to keep his accounts and measure his costs and profits and losses in any other terms than those of sales.

A complete antithesis to this situation is presented in the case of producers of natural products of the soil or producers of natural resources extracted from mines, oil wells, timber lands, etc., operating on their own premises. With these producers, the marketing of the product is usually a secondary and incidental matter, and the primary consideration is volume of production. The predominant feature and main effort of their business is production; they think, act and operate in terms of units and measures produced; when production ceases their business is in liquidation; and they measure their costs, their profits and their losses in terms of production.

As a rule, the producer markets his product more or less currently, at publicly quoted prices; and a normal profit or loss may be reckoned with a reasonable degree of approximation on the year's production, even though some of it may not be marketed until the following year. If the producer does not choose to
market his product currently and allows it to accumulate, it is in the nature of a speculation, usually—and the result of this speculation is a separate matter, not to be confused with the normal profit or loss on the year's production with which the producing business was entitled to reckon.

It would involve curious economic ideas to suppose (for illustration) that during periods of wide margin between cost of production and selling prices, highly lucrative production of metals from a mining property might continue indefinitely without resulting in any earnings to the enterprise, so long as no metals were sold and they were allowed to accumulate.

It would appear, then, that in the case of these producers of natural resources, etc., profit or loss attaches during the period of production to all the product which has been put into marketable form, whether actually marketed or not. The product which has not been marketed, that is to say, the product corresponding to the unsold stocks of merchants, should be taken into the account of the period at its "fair value to the going concern." Only by doing so is it possible to give to the period in which the main effort and service were rendered a fair and commensurate return.

By "fair value to the going concern" we mean (a), in the case of products under contract of sale for delivery in the future, the selling price after making due allowance for unpaid charges and (b), in the case of the remaining product unsold, a reasonable estimate of its fair value, based upon good judgment of market conditions and with due allowance to cover the unpaid charges and the risks intervening before it will be marketed.

Not only does the nature of these operations require that such unsold commodities should be taken into the income account of the production period at their fair value to the going concern, and not at their original cost, but practical considerations exclude the latter basis. The first of these is the difficulty, frequently the impossibility, of ascertaining the original cost. Again, this cost frequently has no present significance and varies widely from more or less current values. Finally, the use of original cost, even when it can be determined, would present an extraordinary extent of price variation for the same commodities in the same industry.

Unsold manufactured goods which have been put in market-
Unsold Goods and the Income Account

able form present many analogies, frequently, to unsold commodities which have been produced from natural resources by cultivators and operators. The main effort and service which were required to bring these manufactured goods into their commercial form were expended usually during the period of production. The effort and service of the period during which goods are fabricated are entitled to commensurate reward within the period itself—this commensurate reward applied to the entire completed output, including the portion unsold. For this reason, the unsold fabricated goods which have reached complete marketable form should be valued in the income account without regard to original cost.

It is to be noted that in applying the valuation rule of "fair value to the going concern" to natural commodities which have been put into marketable form by cultivators and operators, but have not been marketed, and in applying the same rule to manufactured goods which have been fabricated in complete commercial form, we are not brought in conflict with the prohibition against taking into the income account a mere increase in value of property, for, as we have seen, this prohibition applies, necessarily, only to goods which have not changed their original form.

In conclusion: the business of merchandising and trading has its own accounting scheme, which is governed naturally by the emphasis upon selling. The business of the producer of nature's commodities has a different accounting scheme, which is governed naturally by the emphasis upon production. The business of the manufacturer occupies an intermediate position, dependent upon the particular circumstances of the case and whether the emphasis is upon selling or upon production. The rules for ascertaining the net revenue of a given period, so far as they relate to the value to be placed upon unsold goods, are not necessarily, or even naturally, alike for each of these three classes. The valuation rule to be adopted for a given class of goods should depend upon the character of the business, the nature of the controlling accounting scheme and the manner in which the unsold goods were acquired—whether by purchase in their original form, by extraction from the earth or by manufacture.
Accounting for a Cast Iron Pipe Foundry*

By A. Karl Fischer

The Situation To-day

Before going into a discussion of the pipe industry in normal times, I shall discuss some of the problems brought about by the war which the accountant is sure to have to face. There are few industries that war conditions have not changed. Not only have prices been entirely upset, but in many instances the industries themselves have been revolutionized. The iron and steel industries in this country had flourished prior to the war, and the heavy burdens placed on manufacturers meant merely elaboration and extension.

In the cases of the individual concerns, however, many can scarcely be recognized as the manufacturers of a product once uniform in character and quality. Almost any concern working in metal was able by employing initiative to obtain profitable orders, the need for which was created directly or indirectly by the war. In many cases the manufacture of the new product was quite different from any previously undertaken. This expansion was often necessary for existence, for the demand for some products diminished during the war.

Almost all pipe manufacturers make as auxiliary products some other machinery which may be used by gas and water companies. These include such items as fire hydrants, valves, gas-producers, gas-holders, pumps, etc. Because construction of pipe lines by gas and water companies was generally postponed after the beginning of the war on account of the prohibitive prices, it was quite necessary to seek contracts of a new and different character as well as to take war contracts. The construction of machines to be used in ammunition plants was one thing undertaken. This necessitated the installation of much new machinery—some being well adapted to the manufacture of gas-holders, gas-producers and other machinery where the casting process is not involved. The installation of such ma-

* A thesis presented at the November, 1919, examinations of the American Institute of Accountants.
Accounting for a Cast Iron Pipe Foundry

Chinery increased the capacity of the plant for the making of auxiliaries.

While conservatism might prompt charging as much as possible of such additions to operations, correct principles require that all machinery which will have a usefulness in the normal industry shall remain in the plant account. The company will be able to sell many machines which are made of wrought iron or of steel and may have established itself very firmly in this business which before the war was a minor consideration.

The methods of handling and machining pipe and heavy machines undergo a gradual but constant change, and the opportunity may have been taken to replace some antiquated equipment with that of a greater capacity. Here if depreciation charges have been insufficient, in view of the large profits which were earned the splendid opportunity of writing off the values of old machines replaced or abandoned should be pointed out. It may be unnecessary to state that the federal income tax will be an excellent aid in such an effort.

The making of pipe often having been entirely discontinued the foundries were allowed to stand idle. The manufacture of pipe is still not very active. Consideration must be given to the effect which this will have on depreciation and on possible obsolescence.

One company had to put up new buildings for the sole purpose of storing patterns and flasks—one building particularly well protected against fire for the storing of wooden patterns and flasks. I might add that this was done after a rather disastrous fire. While foundry work was going on, this equipment had been kept in convenient places in the foundries and yards. The cost of such new buildings should be liberally charged off, for they may have little usefulness when casting is actively resumed. Here the charging off of the entire amount is excusable.

In the case of another company the production of gas and water machinery, other than castings, has been so increased that the possibility of the complete discontinuance of the production of pipe and castings should be considered.

In another case the erection of parts of gas and water plants has been undertaken by the manufacturer. Here the accountant should insist on proper accounting in regard to the contracts.
He will probably find the management somewhat at a loss to know how to handle the accounts with these contracts and he will have to explain the best practice. While a conservative estimate of the profit actually earned may be taken if desired, the dangers of anticipation of profits should be carefully avoided. In one case I have in mind, the management has adopted the commendable policy of taking no profit until a contract is complete.

The details of the pipe and foundry industry in normal times will be taken up under the following headings.

Balance-sheet,
Revenue and expense accounts,
Production and cost finding.

**Balance-sheet**

*Property*: The storing of pipe requires extensive yards and one of the chief requisites of the location for a pipe foundry is that land shall be cheap. The result is that foundries have usually been built in localities not previously settled. The mill usually owns much of the surrounding land, on which employees' houses are built and where farms will occasionally be in operation. The cost of the land should appear in separate property accounts according to its use.

There are no abnormal conditions affecting the depreciation of buildings, but some consideration must be given to obsolescence. Many old-style foundries are still in operation, but they do not permit the production that can be obtained from the modern pipe foundry. The old-style foundry had several pits, while the modern pipe foundry has only one pit and a much greater capacity. The old-style foundry employs hand-operated chain hoists for removing patterns from the molds and cores from the castings. The new foundry does all this work with cranes. Usually, one size of pipe is made in the new foundry at each heat, and the manufacture of the entire capacity of the foundry can be completed in 24 hours. These improvements merely illustrate the advantage of new buildings over the old.

The machinery and equipment, such as cranes, ladles, locomotives, cars, etc., have a comparatively long life, but improved machinery is constantly being installed. Much of the work on
Accounting for a Cast Iron Pipe Foundry

Pipe can be done almost entirely by machinery, but in some plants labor is still employed where machines could do the work more cheaply.

Cupolas must be frequently relined. The experience of a company will determine the life of the lining and the cost should be written off on a tonnage basis.

The life of machines in the machine shop, such as lathes, boring mills, planers and multiple drills, will probably be shorter than in the foundry, where methods change less frequently.

All pipe manufacturers must make some castings on special designs and on special orders. The cost finding will be discussed under a subsequent heading. The patterns and flasks must, however, be handled differently for pipe which is a standard pattern and for any special casting. Even the head patterns for flanges and bells, which are part of the pipe, are often molded on special patterns.

The steel patterns used in molding pipe have practically the same status as machinery. Their cost can, however, be charged directly to the sizes of pipe on which used. The cost of all patterns for special castings—which besides head patterns will include T’s, elbows and other special work necessary in the laying of pipe lines—should be charged against the individual orders. Some T’s and elbows are carried in stock, and the cost of patterns for these may be distributed over their life. Wooden patterns should be depreciated more heavily, but follow the same general principles as the steel patterns. The wooden patterns, however, will be found to have been constructed mostly for special work. The cost of patterns used in making “barrels” (the trade name for the flasks used in making pipe) should be charged to the first flasks constructed. Having acquired a stock of standard patterns there will be frequent replacements, and these should be charged against reserves.

The cost of flasks will be distributed over the product in the same manner as that of patterns. The cost accounting will be a little more difficult, as one flask may be used on two or three different sizes of pipe. Iron flasks in property accounts will be treated the same way as patterns. Wooden flasks have often comparatively small value and may usually be charged to produc-
tion the first month, even though their life will be considerably longer.

Companies frequently own employees' houses. Depreciation is seldom considered, and the argument about the appreciation of land value will usually be encountered.

**Inventories:** Perpetual inventories of stores must be maintained. Purchases will be charged to the several stores accounts and when requisitioned will be credited thereto and charged to the various departments. The principal accounts which will be maintained are: pig iron, scrap iron, cupola coke, coke (for drying castings), cupola coal, power coal, sand, hay (for use in making hay rope), hay rope (for use in making cores), wood (for use in making patterns and flasks), limestone (used in the cupola), core compound, oil (for use in making cores), blacking, coating, paint and stores accounts for foundry, pattern shop, machine shop and power house.

**Reserve for depreciation:** I have discussed depreciation for the various classes of properties under their respective heads. The reserve as thus determined will, of course, appear on the balance-sheet. It is preferable to show this as a deduction from the combined property account, especially if computed on the basis of actual life of the various classes of property.

**Accounts receivable:** There should be very few losses on bad accounts, as most sales are made to municipalities after ordinances have been passed authorizing construction. There may, however, be some claims for damaged pipe. Some losses may be recovered from railroads, but any damage claims, if carried at all, should be valued very conservatively. The claims for defective pipe will not be large, for most pipe is proved at the foundry by a representative of the municipality or other consumer, and either accepted or rejected there.

**Miscellaneous:** It is usual to enclose a cheque with bids for contracts. These are invariably returned when a bid is accepted or rejected. There is therefore very little question about their value as assets.

The other balance-sheet accounts present no features not encountered in other industries.
Accounting for a Cast Iron Pipe Foundry

REVENUE AND EXPENSE ACCOUNTS

Before discussing revenue and expense accounts themselves something should be said about marketing. A market for gas and water pipe can only be created by the growth of communities and their gradual education up to their needs. The important part for the manufacturer is to learn where municipalities or occasionally corporations are contemplating new construction or extension. Bids are submitted for the work, but high-class pipe men will be needed to close contracts. A large pipe manufacturer must sell pipe in all parts of the United States and will be compelled to have variable prices to compete with mills close to the consumer. Contracts are usually made f. o. b. destination, and prices are made to include the freight. The keeping of trustworthy costs is essential, for bids on large contracts must occasionally be made at short notice, and an unfavorable contract might prove disastrous.

Sales: Sales will include a large amount of freight, and the freight and expressage accounts should be separated into the same classifications in which it is desired to keep the sales accounts. A suitable classification has been found to be bell and spigot pipe, flange pipe, bell and spigot fittings, flange fittings and miscellaneous castings. Returns and allowances will be separated in the same way; but these should be very small as explained above, for defective pipe will be rejected at the foundry. For the general books, cost of sales will be divided in the same way.

Miscellaneous: There is nothing to indicate that selling expenses and administrative and general expenses apply against any particular class of product. There is, therefore, no purpose in trying to distribute them over types or sizes. The same expenses as are found in other businesses will appear here and it is unnecessary to list them.

Rent and maintenance of company houses should have appropriate accounts. Here, as usual, the system of accounting for rents must be investigated. A plan of properties owned should be on hand, but, strange to say, a complete plan is seldom to be found.

If it is desired to show the cost of sales under general ledger captions, the following accounts will usually be maintained:
labor, pig iron, coal, coke, sand, straw, facing, oil, miscellaneous supplies and expenses, taxes, insurance (fire), employers' liability insurance and superintendence.

**Production**

**Peculiarities of production:** While sales of pipe and other castings are not constant, even in normal times, their production may be made more or less so. Here the foresight of the management is a necessary asset. Great quantities of pipe may be made and stored in the yards. Advantage should be taken of the fluctuations in the cost of pig iron. There is as much danger of overstocking of pig iron as there is of pipe.

When sales of pipe fell off during the war many mills found themselves with a large stock of pipe on hand which had no ready sale. The manufacture was cut down and the stock eventually sold, but at a price, warranted by the high price of pig iron, which yielded a handsome profit.

**Processes:** Before going into the methods of cost finding the various processes and departments should be understood. A brief outline of manufacture is given.

Pipe may be completely manufactured to the entire capacity of the pit every 24 hours. The cupola is charged during the afternoon, draught turned on at about four o'clock in the morning and the molten iron poured at about ten o'clock in the morning. A charge includes pig iron, coal, coke, lime-stone and possibly some chemicals.

After removing finished pipe the barrels are again set up for the next day's heat. The sand is poured and rammed and the pattern is pulled through the sand, making the mold. The molds are dried by stoves, arranged in the pit, on which barrels are set. These stoves are fired by coke. The cores, the making of which is a separate operation, are inserted in the mold. The head pattern (the mold for the bell or flange) is then placed on top of the barrel and the complete mold is ready to be poured.

After the pipe has sufficiently cooled it is placed on skids, and goes from one skid to another through the processes of cleaning, coating and the various tests necessary in the proving.

Making of cores is a separate operation. One man usually works upon the same size cores continuously. The core-bar is
Accounting for a Cast Iron Pipe Foundry

placed in a lathe and receives a coating of mud and hay rope, until it reaches the thickness of the inside circumference of the pipe. The hay rope burns when the casting is made and loosens the sand and enables the core to be easily pulled out of the pipe. These cores must be baked in an oven for the purpose.

The mud to be used in cores is prepared by the mud mill. It includes mud, oil and core compound.

The making of hay rope is another distinct process and the completed product is turned over to the core rooms on spools.

Yardage expense includes storing and loading charges.

Pipe is usually tested by an inspector from the consumer, but all pipe must be proved and tested by the manufacturer.

The making of special castings will go through the same general processes, but the uniformity of method will not be possible.

In the modern foundry the placing of the barrels, ramming of molds and inserting of the cores are done by one electric crane. In a more antiquated foundry chain hoists, cars, etc., may be found doing this work.

Some pipe, especially flange pipe, will have to be machined (bored, drilled, planed etc.). There will be a machine shop for this purpose.

Both wooden patterns and wooden flasks will be constructed in the pattern shop. The building of patterns requires high-class carpentry work as well as designing. Flasks are usually no more than boxes without bottoms.

Power production is another process.

The making of brass castings for fittings for special castings may be done by contract, and the keeping of costs or accounts will depend upon the conditions.

Cost finding: For many years it was considered sufficient to distribute costs of various sizes by production weights. In some mills most of the costs are still so distributed. But it has been found possible and practicable to allocate all costs to sizes on a more scientific basis, and such methods as are hereafter outlined are actually in use to-day.

Overhead will have to be charged to the departments. Superintendence must be distributed on an arbitrary basis. Taxes and fire insurance can be distributed to various departments on the
The Journal of Accountancy

appraisal basis; employers' liability insurance on a labor cost basis. Power and light may be metered to departments. If not metered they can be estimated fairly accurately. Very little power except on cranes will be used in the foundry. Power is used for most operations in the machine shop; for some in the pattern shop; for practically all in the pipe core rooms; and for all the making of hay rope.

Depreciation has not been included with these overhead expenses, because it may be treated as a direct cost. The experience in each department will determine the best basis for allocation to various types and sizes.

The making of hay rope is one simple operation, and the labor, hay and overhead costs for the entire month divided by the production weight represent the cost per pound of production. This is the cost at which the hay rope is charged to the pipe core rooms.

The cost of mixing mud for cores is obtained in the same way as that of hay rope and charged to core room in the same way.

In the core room the same men work on the same size cores all the time and they report the materials used when reporting their time. It will be found in any foundry that there is some one, usually the superintendent, who has a very good idea of the principles affecting the distribution of the overhead to various types and sizes. Baking and power as well as general overhead expenses do not necessarily vary with the sizes of pipe by weights or by measurements, and labor cost or labor hours may be used as well for the distribution of expenses. The power consumed in turning cores of different sizes, for instance, will be practically the same—as will the cost of baking.

In the pipe foundry all labor can be charged direct to each size and type of pipe. Likewise all materials can be so charged, excepting iron. The vats where pipes are dipped for coating or blacking are filled from time to time and the cost is distributed to the sizes and types on a tonnage basis.

All expenses of the cupola—labor, "the charges," a provision for relining—are charged to cupola cost account. The hot metal cannot be weighed conveniently and the cost of iron as shown by the cupola cost account is charged to the various types and sizes on the basis of tons produced.
Accounting for a Cast Iron Pipe Foundry

A fixed rate for each size and type of pipe should be established for depreciation of patterns. Another fixed rate should be established for depreciation of flasks for the several sizes and types. These two kinds of rates must be calculated somewhat differently because one pattern makes only one size of pipe, but one flask may make two or three sizes. At the end of any annual or other convenient period an adjustment of these rates may be necessary to bring the costs into agreement with the annual estimate.

Experience will have to determine what basis for the distribution of several other overhead expenses should be employed. It should be noted that the coke used in drying molds can be charged direct to the various sizes and types.

Storing and loading should be distributed to all castings on a tonnage basis.

Only a part of the product, whether special castings or pipe, will need to be machined. There is seldom any machining necessary on bell and spigot pipe, but always on flange pipe. Here labor cannot be charged direct to the types and sizes, for one man can work on more than one machine at a time.

There will be few materials in the machine shop. It is not easy to keep a record of machine hours, nor is it considered that this basis properly takes care of each of the overhead expenses. The most practicable plan has been found to be to distribute the entire cost of the department to each type and size in the proportion that the time of each in the shop multiplied by the weight bears to the whole production calculated on this basis.

With modern manufacturing methods defective work is not a considerable item. The pipe is proved the same day it is manufactured and if defective is immediately broken up and scrapped. This scrapped pipe is kept in one place and eventually returned to the cupola. At the end of each month an inventory of this scrap pipe is taken and the cupola cost account is credited with the manufacture of that amount of scrap iron before costs are distributed to the sizes and types. It is charged with the value of scrap pipe on hand at the beginning of the month. This makes the entire production of each type or size of pipe bear the cost of defective work over and above the iron cost.

In the case of some of the old-style foundries defective work
may be a considerable item and the cost of production should not be made to bear this expense. The entire cost of the pipe after deducting the scrap value should be charged to a defective work account, and may then be distributed as overhead to the entire product or, preferably, be considered a profit and loss item.

*Work in progress:* In the hay rope building we have either hay or hay rope. In the mud mill the quantity of mud ready for use in making cores at any time is inconsiderable. In the core rooms the cores made the last day of the month constitute work in progress, for the cores are made up each day to fill the requirements in foundry the next day. In the foundry the entire cost for the month up to about one or two o’clock in the afternoon of the last day will be represented by pipe. The cost of setting up the barrels, of ramming, etc., for the next day’s heat will represent work in progress.
Accounting for Railroad Construction*

By George M. Hofford

A railroad corporation, like other corporations, is organized under the laws of the state. Articles of incorporation are drafted and signed by the incorporators; the stock is subscribed, and the necessary payments are made thereon, in accordance with the laws of the state; directors and officers are elected; by-laws are drafted and the articles of incorporation, with information as to the board of directors, general officers, subscribers, amount of capital authorized, amount paid and any other information required, are filed with the properly designated state and other public officers. The secretary of state then issues a charter authorizing the corporation to do business, with the right of eminent domain.

The directors are chosen by the stockholders and in turn elect the general officers, whose duties and authority are prescribed by the by-laws.

The elective officers are president, vice-president, secretary, treasurer and auditor. A chief engineer is appointed by the president; the engineering staff is selected; and the work of reconnaissance, locating and surveying routes is begun. As the company is under the necessity of acquiring land for right-of-way, one who is familiar with land values is appointed right-of-way agent to attend to purchasing the land required for right-of-way when the route has been selected.

As the locating engineers send in their field notes and the routes are approved by the chief engineer, maps and profiles, together with description of the location, showing starting point, direction, contour and end of the survey for a particular location, are submitted by the chief engineer to the directors, who in regular session and in lawful manner approve and sign the maps submitted, adopt the route and file a copy of maps and description with the proper state officer. This establishes the corporation’s right to enter upon and construct the railroad, after, of

---

* A thesis presented at the November, 1919, examinations of the American Institute of Accountants.
course, acquiring title to the land either by agreement with the owner or by condemnation proceedings.

It is the auditor's duty so to arrange the accounting plan that the receipt and disbursements of funds are carefully and systematically chronicled and safeguarded and the cost of road and equipment is kept in accordance with the classification prescribed by the interstate commerce commission.

As a safeguard in the matter of purchasing and paying for right-of-way and other lands the auditor should secure from the chief engineer blue prints of the routes adopted, and as contracts are delivered by the right-of-way agent the land acquired should be sketched on the map, showing the contract number, in order that the auditor may be in a position to reject any duplicate contract which may through inadvertence or otherwise be offered him. It follows that when the land has been acquired for the entire route it will be an easy matter to find a contract, deed or abstract of the property, as all title papers will bear the same numbers as the contract and be filed with it as permanent records. When a voucher is offered for payment by the right-of-way agent for the purchase of land the auditor before approving the voucher for payment by the treasurer should require evidence of

1. Approval of contract by the chief engineer,
2. Approval of title by the law department,
3. Notation of contract number on right-of-way map,
4. Entry on record of right-of-way purchases,
5. Entry on tax records,
6. Entry on insurance records (if a building is included in the purchase),
7. Entry in rental ledger (if a building is included in the purchase),
8. Entry in voucher register.

When these things have been done, the auditor is in position to see that taxes are not allowed to become delinquent, that insurance is not allowed to lapse on buildings and that rents are collected on buildings occupied by tenants.

The record of right-of-way purchases should be in loose-leaf form, with certain spaces for showing the contract number, description of property, name of vendor, number of acres (if
country property), lot, block and addition (if city property), cost of property, date of deed and when deed is received. There should be space also for recording sales either of land or buildings, so that the net cost of land retained for corporate use will appear. The total of these records should always equal the cost of land, as shown by the general accounts.

Contracts for the purchase of land should be filed promptly with the proper county officer of the county in which the land is situated, in order that the company's equity may be duly protected. As soon as the deed is received it should be immediately recorded in the county records.

As the auditor is, or should be, custodian of the abstracts of property, an abstract record should be kept. When an abstract is borrowed by the legal or other department a receipt should be obtained and a note made in the abstract record showing in whose hands the abstract is.

The chief engineer, with the approval of the president, contracts for the grading of the roadbed, the rates varying with the nature of the work to be performed by the contractor. It is usual for a monthly estimate to be rendered by the chief engineer covering the work done to date. From the total amount to date of estimate is deducted the amount previously paid, and an agreed percentage is withheld to guarantee completion. The auditor should keep a record of each contract and the progressive payments thereon, in order that he may quickly check the latest estimate rendered. When the contract is completed the amount heretofore held as guarantee of completion is included in the final estimate. The contractor should be required to furnish bond guaranteeing completion of contract, and also to protect the corporation from suits for injuries to persons or property by the contractor.

Tunnels, bridges and the several classes of buildings should be numbered or otherwise identified, and the records so kept that the cost of each unit may be recorded in subsidiary ledgers.

Rolling stock, timber, ties, rails and rail fastenings are purchased subject to certain specifications. When they are inspected by the inspection bureaus, the reports are forwarded to the chief engineer. The material yard superintendent forwards daily reports of the arrival of material and rolling stock. These reports,
with the inspection report and copy of freight bills, should be attached by the chief engineer to the suppliers’ invoices when forwarding them to the auditor. All the papers should be retained by the auditor as his permanent record.

It happens that during construction of the road there are revenues from various sources, principally from rentals of buildings on land purchased for right-of-way and station purposes, as well as from transportation charges before the road is completed and ready to be delivered to the operating department. These revenues are credited and the cost of securing them is charged to an account entitled “revenues and operating expenses during construction,” one of the primary accounts in the cost of road and equipment.

The interstate commerce commission authorizes the inclusion of organization expenses as one of the primary accounts in investment in road and equipment, but does not allow the cost of obtaining loans or expenses incident to the sale of securities to be charged to this account.

Taxes and interest on bonds or other evidences of indebtedness during the period of construction are chargeable to investment in road and equipment and a reasonable charge for interest may be made to this account for the carrier’s own funds expended for construction purposes until the property becomes available for operation.

**Purchasing of Supplies by Field Engineers**

Because new railroad locations are frequently remote from points where supplies for the field engineers may be obtained by the purchasing agent, it is necessary for such engineers to purchase their subsistence and field supplies from other sources. In order that such purchases may be made in an orderly and systematic manner, requisitions printed in triplicate, consecutively numbered and bound in books with 50 sets to each book, should be furnished the field engineer in charge.

The original and duplicate, of different colored paper, should be perforated for removal from the book. When the requisition is written, a carbon copy should be made on the duplicate and triplicate. The original is then handed to the vendor, the duplicate forwarded to the chief engineer and the triplicate retained.
Accounting for Railroad Construction

by the foreman. When the vendor renders his bill he should attach the requisition to the bill; the triplicate should have a notation "bill passed (date)" and the bill should be forwarded to the chief engineer to check against his duplicate requisition, which should be attached to the bill when sending it to the auditor.

The requisition books should be pocket size, so that they may be readily carried by the employee authorized to use them. The auditor should keep a record of all such books purchased and names of employees to whom they are issued.

Paying Employees Discharged or Resigned

Time vouchers should be supplied the chief engineer, care being taken by the auditor to keep records of purchases and issues, as explained above, covering requisitions. The chief engineer should sign each of the time vouchers and show thereon by whom they must be countersigned to make them valid before sending them to his subordinates. He should notify the auditor of the names of his subordinates to whom time vouchers have been sent so that the auditor may have a record of location of each time voucher. When time sheets and payrolls are sent in at end of month a record of time vouchers issued should accompany the payroll, and the time voucher number issued should be shown in space provided on the payroll opposite the name of employee who has been paid off. On the payroll should be shown the lowest number of time vouchers unissued, to be sure that there has been an accounting for all that have been issued. Arrangements should be made with the banks to accept the time vouchers, when signed by the chief engineer and countersigned by the employee duly authorized to sign them.

After payrolls have been received from the chief engineer or from heads of other departments they should be examined and audited in the office of the auditor, and an office bill should be registered to the credit of payrolls and the debit of the proper accounts. Pay vouchers then should be drawn and recorded on the record of pay vouchers issued, which with the record of time vouchers issued should equal the amount of all payrolls. Entry is then made charging payrolls and crediting the new liability accounts, time vouchers and pay vouchers. As the banks present them the treasurer will take them up by issuing
his cheque for the total amount demanded by the bank and will render a list of time vouchers paid and pay vouchers paid, charging the total of such list to time vouchers or pay vouchers, as the case may be. These vouchers with lists and cashbook should be delivered to the auditor daily, with all other vouchers and cash receipts; and the auditor will then be in position to make a daily audit of the treasurer's accounts.

The auditor should then stamp the date paid opposite the entry for each of the time vouchers, pay vouchers and audited vouchers; and at the end of the month a list of outstanding vouchers should be prepared, the total of which should agree with the general ledger control accounts.

Mileage books purchased for the use of various employees for travel on other railroads should be charged to the departments' mileage book accounts at their cost when purchased. In order to clear these mileage book accounts, monthly reports should be required for each mileage book, showing the beginning number, number of miles traveled chargeable to each of the primary construction accounts and lowest number on hand unused. The mileage used for each account multiplied by the rate per mile for which the book has been purchased will indicate the amount chargeable to each account. The unused balance at the cost per mile will necessarily agree with the balance to the debit of mileage book account.

**Work-train Expenses**

A clearing account called work-train expenses should be maintained, and to it should be charged the wages of enginemen and trainmen and the cost of fuel, oil and other supplies used by the work train.

Time-sheets should be prepared, showing the various jobs on which the work train has been used each month, and the total work-train expenses should be allocated to the proper primary construction accounts on the basis of hours spent by the work train on each job, thus clearing the account work-train expenses.

Tools used in the construction of bridges and buildings should be charged to the bridge or building where first allocated, and as they are moved therefrom they should be inventoried in order
Accounting for Railroad Construction

that the wear and tear and loss may be charged to the structure on which they have been used.

The sale of any material or supplies should be made only on approval of the president. The purchasing agent should make a sale order, in triplicate, sending the original to the departmental head authorized to make the sale. The duplicate should be sent to the auditor in order that he may be in position to watch for the accounting for the material sold. The triplicate should be retained by the purchasing agent, who should send the auditor a monthly report of sales authorized.

Bills rendered to the purchaser by the head of a department should have a reference to the sale order; and the auditor should attach his copy of the sale order to his office copy of the bill for his permanent record and authority to take the bill into the accounts.

Sale of real estate or the buildings thereon should be authorized by the president and board of directors, and the contract should be given to the auditor, who should record it on his records of property purchased and retain the authority with his copy of bill rendered the purchaser.

Monthly reports should be rendered showing the classified cost of road and equipment for the current month and the total to date.

It is desirable also that there be statements of deferred payments on right-of-way contracts, showing amounts due by different periods, the different classes of vouchers payable and amounts retained on contracts. These are needed in order that the president may have information in regard to further financing.

It will be the auditor's duty to prepare the accounting forms and instructions in ample time that when the railroad is ready to be delivered to the operating officers there may be no confusion of operating accounts.
Accounts of a Paper Box Factory*

By Thomas J. Shannon

The particular business I have in mind is that which has for its raw material waste paper, which it buys, collects, sorts into different grades, manufactures into various kinds of paper and cardboard and finally ships to the purchaser in the form of a carton or container.

Among the various accounting necessities of this industry there is one essential, on which I propose to base this paper, bringing out, incidentally, many of the peculiar accounting problems associated with it. This necessity is a cost accounting system. In addition to the several reasons why every manufacturer should have a cost system, there is in this industry one reason which of itself alone would be sufficient to justify any expenses incurred therefor. That is the need of an accurate basis on which to estimate competitive bids, because by far the greater part of the contracts received are for large quantities, often running up into the millions, on which, almost without exception, several manufacturers are asked to submit figures. Therefore, to secure the business the price must be reasonable, and if there is not an accurate cost system on which to base estimates the chances of error are altogether too great—and errors, if repeated, would result in serious financial loss, if not in bankruptcy.

What sort of cost system is required? This can be answered in one word: it must be “accurate,” because on account of the infinite variety of the finished product no system of averaging will give anything resembling correct cost or be better than an estimate.

One of the peculiarities of this business is that sales of stock occur when, ordinarily, the stock would be treated as goods in process. For example, the paper stock department may accumulate a surplus of some particular grade of paper which there is no prospect that the mill department will be able to handle for some time, and it is deemed advisable to dispose of it; or orders

* A thesis presented at the November, 1919, examinations of the American Institute of Accountants.
Accounts of a Paper Box Factory

may be received for paper as it is turned out of the paper machine; also, sales of blank cardboard to small box manufacturers are common. It is therefore advisable to divide the factory into three major sections, which we will call

The paper stock department,
The paper mill department,
The box factory.

These, of course, may be further subdivided into as many departments as necessary.

Costs in the paper stock department are quite simple. The raw material is the paper stock as it is collected. Productive labor is that of sorting and baling. Overhead is distributed according to the number of tons sorted and baled during the month. This method gives an average cost per ton of stock sorted and baled. In the case of paper stock of a uniform character, which has to be neither sorted nor baled, the cost is the purchase price plus the hauling charge and an addition for overhead determined by the percentage which the amount so purchased is of the total paper purchased, hauled, sorted and baled during the period. This method gives an accurate cost per ton of paper purchased not sorted. In the case of stock sorted and baled, the best we can do is an average cost per ton, which for the purpose of establishing the selling price is practically useless, because all grades have the same average cost and there is a wide variation between the market values of the different grades, some grades being worth two or three times the value of the cheaper varieties.

Thus, if a true cost of the product manufactured by the mill is to be determined, the paper stock department should be treated as a separate unit and the stock transferred to the mill at the market price. This method will show whether it is more economical to buy sorted stock on the open market or to continue operating the paper stock department.

The paper mill is a manufacturing department, and here costs are more involved.

Raw material is the sorted waste paper, as it comes from the paper stock department, and pulp, sulphite, colors and chemicals. To ascertain the material cost of each order is not a difficult matter, and most concerns of this kind find that averages work very well; but an accurate cost per order can be obtained through the
formula required by the grade of paper on the order, because every grade of paper and cardboard has its own particular formula, which should be rigidly observed if the strength, bending qualities and other essentials are expected. Therefore, each order must be taken separately, and the formula furnishes an excellent short cut in ascertaining the material cost.

The first operation in the manufacture of paper or cardboard occurs when the paper stock is put in the beaters and ground up. To mix his stock intelligently the beater-room foreman must know the amount and grade of paper required. From experience he knows the number of beaters he must mix for that amount, and, as the custom of the business allows a 5 per cent overrun or under-run on an order, if he uses ordinary care he cannot go far wrong. The dry stock capacity of every beater is known, and all that is necessary is for the foreman to report the number of beaters he mixed on each order, which, when multiplied by the capacity of the beaters gives the total weight of stock used. To this figure is applied the formula; and the amount of each kind of raw material for that order is determined.

The accuracy of this method can be tested by the perpetual inventory records, and should be checked every month if a material discrepancy occurs in any kind of stock. The orders manufactured during the month calling for that particular grade should be reviewed and the accuracy of the formula figures verified, though the error will probably be found in the inventory records.

In the manufacture of paper the machine is the governing factor. In distributing overhead the machine rate should be used and great care exercised to determine it as accurately as possible.

Labor should be analyzed by jobs and charged thereto. If sales of blank cardboard or fibre board are made, any additional labor, such as weighing, bundling, trimming or wrapping, should also be charged directly to the job benefited.

As the sales at this stage are often considerable, it simplifies the accounting to regard all the product as sold, including the transfers to the box division. As with the paper stock division, transfers should be made at market price.

The last division, the box factory, is by far the most important. Here averaging has no place and costs must be accurate, because on their accuracy depends the success or failure of the
Accounts of a Paper Box Factory

business. An error of two or three cents on the estimated cost of a hundred cartons when multiplied by a hundred thousand may, if too high, mean the loss of the order, and if too low will undoubtedly mean its receipt and a financial loss to the company. One of the most fruitful sources of unfair competition is an erroneous idea as to what constitutes costs. Systems of calculating costs may vary and give several different results, all of which cannot be right—though they all may be wrong. As the cost of an article cannot be changed after it has been produced the thing to do is to change the method of calculating until the correct cost is determined.

On account of the great variety of the product manufactured, a cost by orders is the only practical method for a box factory.

The direct materials in box factory are more valuable and varied than in either of the other departments, and a complete system of storekeeping and perpetual inventories should be maintained. Everything used in the manufacture for an order which can possibly be charged directly to the job should be so treated—even such things as ink, tape, glue, wire for stitching, etc. As it is not possible to determine the amount of ink or bronze required on an order, a liberal quantity of each color necessary should be withdrawn from storeroom and weighed before being put into the printing press, and when the press has completed the order the amount remaining should be removed, weighed again and returned to storeroom, the difference being the amount used on the order. The amount of tape used can be determined by measuring the depth of the box and multiplying by the number in the order. Wire for stitching can be measured in a similar manner, by determining the feet, or weight, of wire used by a machine per thousand stitches, and, as each box requires the same number of stitches, it is a simple matter to determine the number of stitches in the order. Such accuracy may seem extreme and unnecessary to the uninitiated, but it is only by such methods that trustworthy costs can be secured.

In the manufacture of paper boxes, on account of the endless variety and size of the product, it has not been found practicable to pay piece-work rates to any great extent. In almost all factories workmen are paid an hourly or weekly rate; therefore, to arrive at the labor chargeable to any order every employee whose
labor is expended on a particular order should be instructed to charge the time so spent to that order, regardless of whether the form of product was changed when passing through his hands or not. If the work is essential, it should be charged directly to the order benefited, as that is always the most equitable manner of charging expenses, if at all possible. The best method of accomplishing this is to furnish every employee each morning with a list on which is printed the name and number of each machine in the department in which he is employed and also a list of the operations not performed on a machine, which are directly connected with a particular order. He should be instructed to show his time on this card by orders—hours and minutes on each—which should be checked by his department foreman each evening and compared with the employee’s time as shown by clock cards. If this procedure is carefully followed and all employees are cautioned to fill in the actual time engaged on each job before starting another, it furnishes a good control of the labor and gives excellent results.

The distribution of the overhead still remains, and it is here that the accountant must exercise all his ingenuity that the distribution may be the best and most equitable possible and based on sound theory.

After a little consideration we discard as unsuitable several of the more common methods:

- Percentage of material method, because of the wide variation between the value of the materials used on different orders.
- Percentage of labor cost, not only because of the difference in the rates of wages but because all the product, even in the same department, does not utilize the same facilities to the same extent.
- The prime cost method, because it has all the defects of the two foregoing methods and does not provide a distinction between product manufactured by high-class expensive machinery and by less efficient and cheaper equipment.
- Percentage of labor hours, because it makes no distinction between the facilities employed and would result in overcharging the product of cheap hand labor and undercharging the output of expensive automatic or semi-automatic machines.

About all that is left is the machine-rate method. This system
Accounts of a Paper Box Factory

gives the most satisfactory results, because it recognizes the difference in overhead expenses arising from the operation of different classes of machinery and absorbs as direct charges all overhead expense that can be associated directly or indirectly with the operation of any machine or particular area of the plant.

To get the best results from this system the factory should be highly departmentalized, each department comprising, if possible, only similar machines and processes. In addition to this, each machine in the department should be charged directly with all the expenses which can possibly be associated with it.

The best basis on which to apportion certain expenses is sometimes a problem, but as a general rule the following methods for the ordinary expenses can be followed with good results, provided that the figures from which the percentages chargeable to each production centre have been determined are correct:

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Base of Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>Area of space occupied</td>
</tr>
<tr>
<td>Depreciation on buildings</td>
<td>&quot;</td>
</tr>
<tr>
<td>Insurance on buildings</td>
<td>&quot;</td>
</tr>
<tr>
<td>Taxes on buildings</td>
<td>&quot;</td>
</tr>
<tr>
<td>Heat</td>
<td>&quot;</td>
</tr>
<tr>
<td>Janitor service</td>
<td>&quot;</td>
</tr>
<tr>
<td>Building repairs</td>
<td>&quot;</td>
</tr>
<tr>
<td>Depreciation on equipment</td>
<td>Value of equipment</td>
</tr>
<tr>
<td>Insurance on equipment</td>
<td>&quot;</td>
</tr>
<tr>
<td>Taxes on equipment</td>
<td>&quot;</td>
</tr>
<tr>
<td>Power equipment expense</td>
<td>Horsepower hours determined by test of load carried</td>
</tr>
<tr>
<td>Power equipment depreciation</td>
<td>&quot;</td>
</tr>
<tr>
<td>Current purchased</td>
<td>&quot;</td>
</tr>
<tr>
<td>Power department</td>
<td>&quot;</td>
</tr>
<tr>
<td>Current for light</td>
<td>Payroll hours</td>
</tr>
<tr>
<td>Lighting supplies</td>
<td>&quot;</td>
</tr>
<tr>
<td>Superintendent's salary</td>
<td>Chargeable hours</td>
</tr>
<tr>
<td>Superintendent's office force</td>
<td>&quot;</td>
</tr>
<tr>
<td>Superintendent's office supplies</td>
<td>&quot;</td>
</tr>
<tr>
<td>Factory telephone</td>
<td>&quot;</td>
</tr>
<tr>
<td>Elevator expense</td>
<td>&quot;</td>
</tr>
<tr>
<td>Foremen's wages</td>
<td>Payroll hours of department supervised</td>
</tr>
<tr>
<td>Foremen's clerks</td>
<td>&quot;</td>
</tr>
<tr>
<td>Overtime</td>
<td>Direct to job benefited</td>
</tr>
</tbody>
</table>

The hourly charge for each machine can be obtained by divid-
The Journal of Accountancy

ing the total expenses charged to it by the number of productive hours worked during the period; or, if the expense applicable to the idle time of the machine is desired, we may divide by the number of productive hours in the period, assuming that each machine worked full time. The difference between the productive hours in the period and the productive hours worked multiplied by the normal rate gives the overhead applicable to idle time, which may be regarded as a department expense and be pro-rated over product of that department.

In a well-balanced box factory the item of idle time should not be an important figure. Many orders for large quantities are received which may require delivery of certain amounts each month for a period of six or eight months, so that at almost every season there are many unfilled orders, and if a dull period occurs employees and machines are put to work on them until current business becomes normal. This takes the place of what is known as manufacturing for stock in an industry where the product is more or less standardized, except in this case the product has been sold but must be stored for a period before being delivered. In the paper box and carton industry every purchaser has his own specific requirements—consequently nothing of a standard nature is used and manufacturing for stock is unknown.

In closing the books for the fiscal period these unfinished orders are in all sorts of condition. Often part of one order has been delivered, another part has been completed and is in the finished storeroom, a third part is uncompleted and in all stages of manufacture, and on still another part nothing has been done at all. If the finished and undelivered items are substantial the problem arises as to whether or not a profit should be taken on them. The general procedure is to inventory them at cost and allow the period in which they are delivered to have the profit; but if deliveries were made shortly after closing I cannot see why the period producing these articles should not get the credit. Of course, if the procedure were to be changed, the orders finished during a prior period and delivered in the current period would have to receive consideration.

Many of the large paper box manufacturing concerns are at present making extensive experiments with a view to expanding their rapidly increasing usefulness, and patented articles are quite
Accounts of a Paper Box Factory

common. The accounting for this experimental work does not differ from that in any other manufacturing concern. The expense of each experiment is segregated, and if a patent is secured the amount is used as the base of the book valuation of that patent.

The future of the paper box and container is assured. Demand for these articles is constantly growing, and industries which formerly used wooden boxes exclusively have now discarded them entirely in favor of the more economical paper product. Serious inroads are also being made on other types of container, and in the near future it is quite possible that much of the food product now canned will be put up in some form of paper box or carton.

The industry offers an interesting field to the cost accountant, and to one who is so fortunate as to be connected with progressive concerns of this type the future offers unlimited possibilities.
Appraisals and Their Relation to Accounts

By Lester G. Hawkins

Appraisal and valuation matters have not in the past been regarded by the accounting profession as being related to or of more than passing importance in accounting theory and practice. In fact, many text-books on accounting procedure are known to express certain pertinent opinions and instructions, to the effect that appraised property values have no connection with book values, and should not be considered as having any particular importance to the auditor or business advisor, except so far as such values may be of assistance in credit and other purely financial matters.

This doctrine has been entirely ethical so far as the meaning of appraisal, as it has been generally accepted in the past, is concerned, yet it is the purpose of the writer to show that this general definition given to an appraisal has been somewhat misleading, and has thus caused these matters to be perhaps too summarily dismissed by the accountant as having no particular relation to his work.

Appraisals are not, as many suppose, all alike as to their form or scope, manner in which conducted and usage for which they are designed. On the contrary appraisals, as they have become necessary in the last few years, cover a very large number of usages, and the fact that many industrial and utility organizations have had appraisals made of their properties, only to learn a short time later that they required another appraisal for a particular purpose, which the old appraisal could not accomplish in any circumstances, is evidence of this fact.

The "reproduction" appraisal, which is conducted on the basis of "cost to reproduce" theory, is that commonly referred to by the average person in discussing appraised values. The fact that the uninitiated in valuation and appraisal matters have accepted this type of appraisal as being the entire field of the profession has brought about the generally distorted view referred to above.

206
Appraisals and Their Relation to Accounts

The reproduction appraisal has its own particular uses and also its limitations. Among its uses are the following:

1. To place insurable values correctly.
2. To obtain loans.
3. To inspire confidence in stock and bond issues.
4. As a basis for negotiating purchase or sale.

The reproduction appraisal has no place in the accounting field so far as book values are concerned. The taking up on the books of values shown by such an appraisal is, of course, a violation of one of the most fundamental accounting principles.

The test as to what are the uses and limitations of an appraisal is found in the method prescribed for conducting it. An appraisal may be made of reproduction costs and used for any of the purposes above enumerated. It may be made of actual costs, or it may be made of market prices at any given date—and in each case may be designed for an entirely different purpose. The essence of the appraisal, it will be seen, is in the determination of value upon some given basis of cost.

An appraisal of property upon the basis of actual cost should furnish the correct book value of the property, by reason of the fact that it establishes the point as to whether the depreciation reserve is inadequate or excessive.

A reservation for bad debts is made in a manner similar to a reservation for depreciation. The question as to whether such reserve for bad debts is inadequate or excessive is, however, easily determined at the end of the period, because the information necessary to determine the matter is easily accessible. Is it not equally desirable that the question as to whether the depreciation reserve is inadequate or excessive be accurately determined at reasonable intervals? Unlike the allowance for bad debts, the allowance for depreciation cannot be checked at the end of the accounting period, since its justification cannot be fully established under ordinary conditions until the building or machine, after a long period of years, becomes worn out or obsolete. The appraisal, conducted by the scientific appraisal engineer who deals in utilities and values, can furnish the check desired at any time during this long period.

A most important development in the appraisal field has been brought about by our present federal excess profits tax laws.
Corporations' federal taxes are computed on the basis of the ratio between earnings and capital investment. The regulations of the bureau of internal revenue in regard to federal taxes have been based upon the assumption that in many cases book values are misleading and do not form a correct basis for the levying of taxes. To alleviate this situation the regulations have prescribed a remedy, which in many cases can only be applied through appraisal methods.

Representatives of the department, in their interpretation and rulings under the regulations, have also taken the position that appraisals, in the sense in which they are generally regarded, are not acceptable in any adjustments of plant accounts; yet they have specified in effect that the appraisal process is necessary in any adjustment of the fixed assets. A recent communication from the department is quoted in part herewith:

Where there has heretofore been charged off excessive depreciation on property still owned or in use, or has been charged to expense amounts paid out for the acquisition of plant, equipment or other tangible property still owned and in active use, and where in either case the cost of the property has not been specifically recovered in the price of goods or service (special tools, patterns, etc.), then the amounts which have been charged off either as depreciation or as current expense, upon satisfactory proof, may be restored to the surplus account. In order to make such restoration to invested capital it is necessary to prove the amounts excessively charged. In the opinion of this office, if such charges are not readily ascertainable from the books, proof may be made by ascertaining the original cost of all fixed assets and then deducting a proper charge for depreciation.

The ascertaining of original cost of all fixed assets and then deducting a proper charge for depreciation is in any circumstances an appraisal process. Ordinary rule of thumb methods and percentage deductions based on estimated yearly rates of depreciation will not solve this problem.

To illustrate the impossibility of using such methods an example is given which is based upon actual facts known to the writer.

A textile plant, which several years ago adopted an accounting policy of preparing during the prosperous periods for possible future lean years, purchased machinery and plant equipment during those years and charged it to expense. Attempting, under the regulations, to reinstate these items in the machinery account less proper deductions for depreciation the company found itself confronted with a difficult problem.

It became evident at the start that no accurate adjustment
Appraisals and Their Relation to Accounts

could be made from the books alone, since, although it was possible to trace to the expense accounts during prior years charges which should have been capitalized, the evidence that the equipment thus charged was still owned and in active use could not be obtained except by a complete inventory of the physical property.

Upon making such an inventory of the property and attempting to reinstate the items in the plant account, less proper deductions for depreciation, certain machinery subject to this reinstatement, on which an almost universal estimate as to the annual depreciation rate was five per cent, was found to have been in continuous operation in the plant for thirty years, and in such condition as to warrant a probable future term of usefulness of from three to ten years. Other machines of the same type, which were less than twenty years old, however, were found to be practically ready for the junk pile. This was due in some cases to the fact that the older machines either had been kept in better repair or had been subject to less wear and tear due to peculiar local conditions. Any attempt to determine the proper deduction from the cost of these machines for accrued depreciation by the use of cumulative yearly rates was so obviously incorrect and inadequate that it was abandoned. The determination of the proper deductions could only be made by ascertaining the actual depreciated value of the machines through inspection and consideration of the necessary factors, i.e., true cost, age, condition and probable period of usefulness—in other words, through a distinct appraisal process.

It is believed that the appraisal procedure outlined must of necessity receive consideration by the accounting profession. It accomplishes that which can be accomplished in no other way. Depreciation rates are at best only opinions and estimates, and even when advanced by the highest authorities they do not measure up to actual performances. Neither can past performances be regarded as accurate bases for estimates for the future, because industrial equipment is not only subject to changing conditions, but is of itself variable as to its susceptibility to wear and tear.

Appraisal is the adjustment between the estimate and the actual performance, and unless it is used periodically for such adjustment the book values will be distorted and reports showing results from operations cannot be regarded as accurate.
EDITORIAL

Investments in Foreign Securities

The newspapers nowadays are filled with discussions of the lamentable condition of foreign exchange and advertisements of brokers, bankers and others, drawing attention to the peculiarly favorable returns which may be derived from the purchase of securities of foreign governments. We are told that investment in foreign loans may lead to a profit of from 100 to 200 per cent, according to the imagination of the advertiser, and the statements are supported by tables showing the present debased condition of foreign exchange compared with the parity, which, by the way, never exists. Exchange in francs or sterling, or any other foreign money, may go to a premium or a discount, but it never remains exactly at par.

However, for the purpose of comparison it is interesting to place the intrinsic value of foreign money against the present low price at which such money can be bought.

This is a matter with which accountants should acquaint themselves, as there is an increasing tendency among Americans to speculate in the bonds of foreign countries. A few years ago such operations would not have been described as speculation, but as sound investment. Now, however, when the world is in turmoil financially and no one can see the outcome, there are few investments which can be regarded as gilt-edged, and most foreign offerings have at least a speculative element in them.

A quite remarkable book by John Maynard Keynes, who was representative of the British treasury at the peace confer-
Editorial

dence in Paris, has attracted a great deal of attention, and we believe will have a direct bearing upon the public opinion in regard to foreign government bonds. The book to which we refer, *The Economic Consequences of the Peace*, is evidently written by a man who, with a wide comprehension of the principles of international finance, regards the treaty as impracticable in many ways.

It is perhaps well that there should be such a book as that which Mr. Keynes has written, because some of us, particularly in America, are inclined to think rather lightly of the seriousness of the European financial and racial problems. The war and its resultant chaos are not matters of intimate concern to the average American, even of the better informed classes, and it is a good thing that we should be brought up with a round turn once in a while and told to face the facts. In facing the facts, however, let us not mistake clouds for night or dangers for disasters.

If America is to stimulate her foreign trade, something must be done to encourage the resumption of healthy relations between the moneys of the several European countries and our own. Trade reports already are indicating the inevitable decline in export business which must follow so abnormal a condition of foreign exchange, and we are told that something must be done to rectify matters without delay. One of the things which we can do is to invest largely in the so-called internal securities of foreign governments. But the investment must be wisely and cautiously made, for there are securities from which a return is improbable.

Some pessimists would tell us that even the internal loans of France, while not in danger of repudiation, may be in some danger of temporary default.

We do not believe for a moment that any security bearing the endorsement of the French republic or of Belgium is in danger of repudiation, and so far as British and British colonial obligations are concerned we regard them as almost as safe as the securities guaranteed by the United States government.

The whole question of investment in foreign securities should receive consideration by every accountant who is called upon to give financial advice—and in these days what accountant is not?


The Journal of Accountancy

Labor and Capital

If you stop any man in the street and ask him what is the big problem of the hour, he will undoubtedly say: "The relation between capital and labor." He will say this whether he is a capitalist or a laboring man or one of that enormous inert mass of humanity which permits itself to be described as the middle class and is the grist which is being ground between the upper millstone of labor and the nether millstone of capital.

This problem probably has existed from the day when man hired his first servant, and it will certainly continue until the end of our present scheme of things here on earth. Once in a while the relations between the two great factors of production become strained, and we are told that a revolution is about to occur. Sometimes it actually occurs, and then as a rule hell breaks loose.

Here in America there is a vast number of alien laborers, led by a more or less unscrupulous coterie of agitators, which makes a great noise and threatens terrible things. The capitalist is denounced, and his ways are abhorred—and it is a lamentable fact that the capitalist generally becomes frightened and surrenders to the will of the labor agitator.

The American capitalist, instead of the awe-inspiring dictator which the labor leaders would have you believe him to be, as a general thing is rather inclined to do the best he can for his employees. In the past he has made tremendous mistakes and the laboring man has not had a square deal; but the capitalist has generally erred in ignorance, not with malice aforethought.

The American working man, as a whole, is about the finest type of skilled labor in the world. He is honest, usually straight-thinking, a good American at heart, and not much inclined to shoot up the town or tear down the structures of civilization. If you talk to him in the individual you find him all that you could desire. If you talk to him in mass when the labor agitator is around you find him incomprehensibly foolish. But you never find him at heart an anarchist. He believes in law and order, and in the last extremity he will stand for it.

Quite recently we heard of proposed solutions of the labor problem which seem to us worthy of reproduction, and all the remarks which have gone before are merely by way of intro-
Editorial

duction to this simple idea, which is not entirely new of course—but nothing on such a question is likely to be new.

A speaker at a convention held near New York, in the course of remarks upon quite another subject, said incidentally that he believed the labor question could be solved by the adoption of two principles: first, that the laboring man, the capitalist or any other human being should have exactly the same voice in the industrial affairs in which he is concerned that he has in the political affairs in which he is interested; second, that the laboring man, the capitalist or anyone else concerned should be informed of the disposition of all the profits of any business or trade or industry to which he contributed financially or by service.

The first of these two propositions sounds like industrial socialism—and socialism has a deservedly unpopular place in public estimation to-day—but if we analyze the proposition it seems to have much to commend it. Of course, the actual development of the idea would require great thought. It might be necessary to place a different value upon the industrial votes of different classes so as to overcome the discrepancy between the numbers of human entities in the several classes. The idea, however, is pure theory at present, and we are offering it, not with any endorsement, but as an interesting academic proposal. It may be said for it, however, that a voice in the affairs of a nation generally carries with it an inclination to establish the strength of the nation, and the same principle might apply in the case of industry.

The second thesis, namely, that the disposition of profits of a business should be known to all who help to produce the profits, is one that must appeal to every sound thinking accountant. In these days of secret reserves and hidden surpluses on the part of companies and of absurd and disgusting extravagances on the part of people, one wonders whether complete publicity as to the destination of every dollar of profits would not do much to bring us to our senses.

Of course, everything that makes for clear statement of facts appeals to the accounting mind. To show things as they are should be the ambition of everyone connected with accountancy.

With this thought in mind we present to our readers this second part of a theory for solution of a world-old problem.

213
Differences of Opinion

It seems scarcely necessary to say that The Journal of Accountancy does not necessarily stand sponsor for all views expressed in signed articles which it publishes. We would not have thought it worth while to mention this fact at all had it not been for the apparent impression in the minds of at least a few readers that nothing could appear in The Journal of Accountancy with which the magazine did not officially agree in principle.

In this issue appears an article entitled Unsold Goods and the Income Account, by William B. Gower. The views expressed by Mr. Gower in this article do not conform to those of most accountants, and we do not endorse the arguments which he presents. The matter concerned is of great interest and Mr. Gower's remarks are ingenious and therefore worthy of consideration, but we doubt if they are sound from an accounting point of view.

It may be said, however, in Mr. Gower's favor, that, since his article was submitted to us, form 1040F, "Schedule of farm income and expenses," has been issued by the treasury department and contains an endorsement of his position. In the instructions on page 4 of the form appears the following:

"Inventory. If you render your return for the taxable period of 1919 upon an accrual basis, you may value your closing inventory for 1919 according to the farm price method which contemplates valuation of inventories at market less cost of marketing."

It seems, therefore, that while the orthodox accounting principles may not accord with the views expressed by Mr. Gower, he has at least the consolation of knowing that the treasury has seen the matter as he sees it, with the important qualification, however, that the treasury limits the application of the rule to the inventories of farmers and stock-raisers, where the cost basis is especially difficult to determine.
Income-Tax Department

As this issue of The Journal of Accountancy goes to press there appears no indication of an intention on the part of the bureau of internal revenue to grant general permission to file tentative returns on March 15th. Public accountants throughout the country are laboring manfully to file as many returns as possible before the expiration of the time limit, but it appears likely that there will be many cases in which permission must be granted to file tentative returns which will be followed later by complete returns.

The commissioner of internal revenue has indicated his willingness to grant such privileges in meritorious cases.

The following treasury rulings have been issued since those published in the February issue of this magazine:

TREASURY RULINGS
(T. D. 2966, February 4, 1920)

Income Tax

Deductions allowed: charitable contributions—article 251, Regulations 45, amended

Article 251 of regulations 45 is hereby amended to read as follows:

Art. 251. Charitable contributions.—Contributions or gifts within the taxable year are deductible to an aggregate amount not in excess of fifteen per cent of the taxpayer's net income including such payments, if made (a) to corporations or associations of the kind exempted from tax by subdivision (6) of section 231 of the statute or (b) to the special fund for vocational rehabilitation under the vocational rehabilitation act of June 27, 1918. For a discussion of what corporations and associations are included within (a) see article 517. A gift to a common agency (as a war chest) for several such corporations or associations is treated like a gift direct to them. In connection with claims for this deduction there shall be stated on returns of income the name and address of each organization to which a gift was made, and the approximate date and the amount of the gift in each case. Where the gift is other than money, the basis for calculation of the amount of the gift shall be the cost of the property, if acquired after February 28, 1913, or its fair market value as of March 1, 1913, if acquired prior thereto, after deducting from such cost or value the amount, if any, which has been or which should have been set aside and deducted in the current year and previous years from gross income on account of depreciation, and which has not been paid out in making good the depreciation sustained. A gift of real estate to a city to be maintained perpetually as a public park is not an allowable deduction. This article does not apply to gifts by partnerships, estates and trusts, or corporations. See sections 218 and 219 of the statute and articles 561 and 563.
The Journal of Accountancy

(T. D. 2967, February 4, 1920)

Income Tax

Amending article 367, final edition of regulations 45, concerning the use of substitute certificates

The final edition of regulations 45 is amended by changing article 367 to read as follows:

Art. 367. Use of substitute certificates.—Resident collecting agents and responsible banks and bankers receiving interest coupons for collection with ownership certificates attached may present the coupons with the original certificates to the debtor corporation or its duly authorized withholding agent for collection or may detach and forward the original certificates directly to the commissioner, provided each such collecting agent shall substitute for such original certificates its own certificates (form 1058 [revised] or form 1059 [revised]), and shall keep a complete record of each transaction, showing (a) serial number of item received; (b) date received; (c) name and address of person from whom received; (d) name of debtor corporation; (e) class of bonds from which coupons were cut (whether containing a tax-free covenant or not); and (f) face amount of coupons. The original certificate for which the certificate of the collecting agent is substituted shall be indorsed, preferably with a rubber stamp, by the collecting agent as follows:

Owner's certificate No. ........

(Name of collecting agent)

.........................., 19...

(Give date of certificate)

The counterpart of the within certificate bearing like number was attached to the coupons within mentioned for delivery to the debtor or withholding agent, by whom the coupons are payable.

For the purpose of identification the substitute certificates shall be numbered consecutively, reverting to the numeral 1 at the beginning of each calendar year, and corresponding numbers given the original certificates of ownership. The use of substitute certificates by collecting agents, banks and bankers is not permitted, however, in the case of ownership certificates presented with coupons for collection by non-resident alien individuals, partnerships or corporations.

(T. D. 2969, February 4, 1920)

Ownership certificates—alien property custodian

Article 375, treasury department regulations 45, is hereby amended to read as follows:

Payments made after October 6, 1917, to the alien property custodian are in the same category as payments made to or for citizens or residents of the United States. Withholding at the source is accordingly unnecessary except in the case of interest payments on corporate bonds or other obligations containing a tax-free covenant where no exemption is claimed. The alien property custodian should use form 1000 (revised) in collecting interest on bonds containing a tax-free covenant, and in all other cases should use form 1001 (revised), except that in cases in which the alien property custodian shall, under the trading with the enemy act, demand payment to himself of interest accrued upon bonds or other securities not yet reduced to his custody (even though they be registered in the name of an enemy,
ally of enemy, or his agent or trustee), the corporation paying such income to the alien property custodian is authorized to accept from the alien property custodian ownership certificates, forms 1000 (revised) and 1001 (revised), altered by the substitution (in lieu of the certificate required thereon) of a certificate that the alien property custodian is entitled to the interest entered therein with or without deduction of tax, as the case may be. No distinction is to be made between payments directly to the alien property custodian and to his depositaries and between interest on registered bonds and interest on coupon bonds. In the case of enemies or allies of enemies holding a license granted under the provisions of the trading with the enemy act, withholding is required as in the case of any non-resident alien not an enemy or ally of enemy. See article 446.

(T. D. 2970, February 4, 1920)

**Income Tax**

Amending article 307, final edition of regulations 45, dealing with non-resident alien individual entitled to personal exemption and credit for dependents

The final edition of regulations 45 is amended by changing article 307 to read as follows:

**Art. 307. When non-resident alien individual entitled to personal exemption.—** (a) The following is an incomplete list of countries which either impose no income tax or in imposing an income tax allow both a personal exemption and a credit for dependents which satisfy the similar credit requirement of the statute: Argentina; Belgium; Bolivia; Bosnia; Brazil; Bukowina; Canada; Carinthia; Carniola; China; Chile; Cuba; Czecho-Slovakia, including Bohemia, Moravia and Slovakia; Dalmatia; Denmark; Ecuador; Egypt; France; Galicia; Poritz; Gradisca; Greece; Guatemala; Herzegovina; Istria; Lower Austria; Luxemburg; Mexico; Montenegro; Morocco; Newfoundland; Nicaragua; Norway; Panama; Paraguay; Persia; Peru; Portugal; Roumania; Russia (including Poles owing allegiance to Russia); Salzburg; Santo Domingo; Serbia; Slavonia; Slavonia; Transylvania. (b) The following is an incomplete list of countries which in imposing an income tax do not allow to citizens of the United States not residing in such country either a personal exemption or a credit for dependents and, therefore, fail entirely to satisfy the similar credit requirement of the statute: Australia; Costa Rica; Great Britain and Ireland; Japan; The Netherlands; New Zealand; Sweden. The former names of certain of these territories are here used for convenience, in spite of an actual or possible change in name or sovereignty. A non-resident alien individual who is a citizen or subject to any country in the first list is entitled for the purpose of the normal tax to such credit for a personal exemption and for dependents as his family status may warrant. If he is a citizen or subject of any country in the second list he is entitled to a credit for personal exemption, but to none for dependents. If he is a citizen or subject of any country in the third list he is not entitled to credit for either a personal exemption or for dependents. If he is a citizen or subject of a country which is in none of the lists, then to secure credit for either a personal exemption or for dependents he must prove to the satisfaction of the commissioner that his country does not impose an income tax or that in imposing an income tax it grants the similar credit required by the statute.
Method of determining gain or loss, article 1563 of regulations 45, amended

Regulations 45 are hereby amended by substituting for article 1563 as it now stands the following:

Art. 1563. Exchange of property.—Gain or loss arising from the acquisition and subsequent disposition of property is realized when as the result of a transaction between the owner and another person the property is converted into cash or into property (a) that is essentially different from the property disposed of, and (b) that has a market value. In other words, both (a) a change in substance and not merely in form, and (b) a change into the equivalent of cash, are required to complete or close a transaction from which income may be realized. By way of illustration, if a man owning ten shares of listed stock exchanges his stock certificate for a voting trust certificate, no income is realized, because the conversion is merely in form; or if he exchanges his stock for stock in a small, closely held corporation, no income is realized if the new stock has no market value, although the conversion is more than formal; but if he exchanges his stock for a Liberty bond, income may be realized, because the conversion is into independent property having a market value. "Market value" is the price at which a seller willing to sell at a fair price and a buyer willing to buy at a fair price, both having reasonable knowledge of the facts, will trade. Property received in exchange for other property has no "fair market value" for the purpose of determining gain or loss resulting from such exchange when, owing to the condition of the market, there can be no reasonable expectation that the owner of the property, though wishing to sell, and any person wishing to buy will agree upon a price at which to trade unless one or the other is under some peculiar compulsion. It does not follow that property has no "fair market value" merely because there is no price therefor established by public sales or sales in the way of ordinary business. The property received in exchange may be real estate, personal property, or a chose in action. Where the owner of a bond exercises the right, provided for in the bond, of converting the bond into stock in the obligor corporation, such transaction does not result in a realization of profit or loss, the transaction not being closed for purposes of income taxation until such stock is sold.

Amendment to article 141 of regulations 45

Art. 141. Losses.—Losses sustained during the taxable year and not compensated for by insurance or otherwise are fully deductible (except by non-resident aliens) if (a) incurred in the taxpayer’s trade or business, or (b) incurred in any transaction entered into for profit, or (c) arising from fires, storms, shipwreck, or other casualty, or from theft. They must usually be evidenced by closed and completed transactions. In the case of the sale of assets the loss will be the difference between the cost thereof, less depreciation sustained since acquisition, or the fair market value as of March 1, 1913, if acquired before that date, less depreciation since sustained, and the price at which they were disposed of. See section 202 of the statute and articles 39-46 and 1561. When the loss is claimed through the destruction of property by fire, flood, or other casualty, the amount deductible will be the difference between the fair market value of the property as of March 1, 1913, if acquired before that date, or if acquired on or after that
Income-Tax Department

date, its cost, and the salvage value thereof, after deducting from such cost, or such value as of March 1, 1913, the amount, if any, which has been or should have been set aside and deducted in the current year and previous years from gross income on account of depreciation and which has not been paid out in making good the depreciation sustained. But the loss should be reduced by the amount of any insurance or other compensation received. See articles 49 and 50. A loss in the sale of an individual's residence is not deductible. Losses in illegal transactions are not deductible. Where a person gives property away, or is divested thereof by death, no realization of loss results therefrom.

(T. D. 2973, February 9, 1920)

Treasury Certificates of Indebtedness

Instructions relative to acceptance of treasury certificates of indebtedness for income and profits taxes, supplementing articles 1731 and 1732, regulations 45 (revised), and superseding treasury decisions 2907 and 2918.

Collectors of internal revenue are authorized and directed to receive at par United States treasury certificates of indebtedness of series T 8, dated July 15, 1919, series T 9, dated September 15, 1919, series T M 3-1920, dated December 1, 1919, and series T M 4-1920, dated February 2, 1920, all maturing March 15, 1920, in payment of income and profits taxes payable on March 15, 1920. Collectors are authorized and directed to receive at par treasury certificates of indebtedness of series T J 1920, dated December 15, 1919, maturing June 15, 1920, in payment of income and profits taxes payable on June 15, 1920; treasury certificates of indebtedness of series T 10, dated September 15, 1919, maturing September 15, 1920, in payment of income and profits taxes payable on September 15, 1920; and treasury certificates of indebtedness of series T D 1920, dated January 2, 1920, maturing December 15, 1920, in payment of income and profits taxes payable on December 15, 1920. Collectors are further authorized and directed to receive at par, in payment of income and profits taxes payable at the maturity of the certificates, respectively, treasury certificates of indebtedness of any series maturing on March 15, June 15, September 15, or December 15, 1920, respectively, and expressed to be acceptable in payment of income and profits taxes. Collectors are not authorized hereunder to receive in payment of income or profits taxes any treasury certificates of indebtedness not expressed to be acceptable in payment of income and profits taxes, or maturing on a date other than the date on which the taxes are payable. Collectors are authorized to receive treasury certificates of indebtedness which are acceptable as above provided in payment of income and profits taxes, in advance of the respective dates on which the certificates mature. Treasury certificates acceptable in payment of income and profits taxes have one or more interest coupons attached, including as to each series a coupon payable at the maturity of the certificates, but all interest coupons must in each case be detached by the taxpayer and collected in ordinary course when due. The amount, at par, of the treasury certificates of indebtedness presented by any taxpayer in payment of income and profits taxes must not exceed the amount of the taxes to be paid by him, and collectors shall in no case pay interest on the certificates or accept them for an amount other or greater than their face value.

Deposits of treasury certificates of indebtedness received in payment of income and profits taxes must be made by collectors, unless otherwise specifically instructed by the secretary of the treasury, with the federal reserve bank of the district in which the collector's head office is located, or in case such head office is located in the same city with a branch federal reserve bank, with such branch federal reserve bank. Specific instructions may be given in certain instances for the deposit of the certificates with

219
The Journal of Accountancy

federal reserve banks of other districts and branch federal reserve banks. The term "federal reserve bank," where it appears herein, unless otherwise indicated by the context, includes branch federal reserve banks. Treasury certificates accepted by the collector prior to the dates when the certificates respectively mature should be forwarded by the collector to the federal reserve bank to be held for account of the collector until the date of maturity and for deposit on such date.

Collectors of internal revenue are not authorized, unless otherwise notified by the secretary of the treasury, to receive in payment of income or profits taxes interim receipts issued by federal reserve banks in lieu of definite certificates of the series herein described.

Certificates of indebtedness should in all cases be stamped as follows by the collector, and when so stamped forwarded to the federal reserve bank by registered mail uninsured:

........................................, 192...

This certificate has been accepted in payment of income and profits taxes and will not be redeemed by the United States except for credit of the undersigned.

........................................
Collector of internal revenue.

For the .......... district of ............

Collectors should make in tabular form a schedule in duplicate of the certificates of indebtedness to be forwarded to the federal reserve bank, showing the serial number of each certificate, the date of issue and maturity and face value. Certificates of indebtedness accepted prior to the date of maturity must be scheduled separately. At the bottom of each schedule there should be written or stamped "Income and profits taxes $ .........," which amount must agree with the total shown on the schedule. One copy of this schedule must accompany certificates sent to the federal reserve bank and the other be retained by the collector. The income and profits tax deposits resulting from the deposits of such certificates must in all cases be shown on the face of the certificate of deposit (national bank form 15) separate and distinct from the item of miscellaneous internal revenue collections (formerly called ordinary), but it is not necessary to give the separation into corporation income, individual income and profits taxes.

Until certificates of deposit are received from the federal reserve banks, the amounts represented by the certificates of indebtedness forwarded must be carried by collectors as cash on hand, and not credited as collections, as the dates of certificates of deposit determine the dates of collections.

For the purpose of saving taxpayers the expense of transmitting such certificates as are held in federal reserve cities or federal reserve branch bank cities to the office of the collector in whose district the taxes are payable, taxpayers desiring to pay income and profits taxes by treasury certificates of indebtedness acceptable in payment of such taxes should communicate with the collector of the district in which the taxes are payable, and request from him authority to deposit such certificates with the federal reserve bank or branch in the city in which the certificates are held. Collectors are authorized to permit deposits of treasury certificates of indebtedness in any federal reserve bank or branch with the distinct understanding that the federal reserve bank or branch is to issue a certificate of deposit in the collector's name covering the amount of the certificates of indebtedness at par, and to state on the face of the certificate of deposit that the amount represented thereby is in payment of income and profits taxes. The federal reserve bank or branch should forward the original certificate...
Income-Tax Department

of deposit to the treasurer of the United States, with its daily transcript, and transmit to the collector the duplicate and triplicate, accompanied by a statement giving the name of the taxpayer for whom the payment is made, in order that the collector may make the necessary record and forward the duplicate to the office of the commissioner of internal revenue.

This treasury decision amends and supplements the provisions of articles 1731 and 1732 of regulations 45 (revised), and supersedes treasury decisions 2907 and 2918.

(T. D. 2977, February 11, 1920)

Revenue act of 1918

Amendment of article 251 of regulations 45, as amended by T. D. 2966

Article 251 of regulations 45 is amended to read as follows:

Art. 251. Charitable contributions.—Contributions or gifts within the taxable year are deductible to an aggregate amount not in excess of 15% of the taxpayer’s net income, including such payments, if made (a), to corporations or associations of the kind exempted from tax by subdivision (6) of section 231 of the statute, or (b) to the special fund for vocational rehabilitation under the vocational rehabilitation act of June 27, 1918. For a discussion of what corporations and associations are included within (a) see article 517. A gift to a common agency (as a war chest) for several such corporations or associations is treated like a gift directly to them. In connection with claims for this deduction there shall be stated on returns of income the name and address of each organization to which a gift was made, and the approximate date and the amount of the gift in each case. Where the gift is other than money, the basis for calculation of the amount of the gift shall be the cost of the property or its fair market value as of March 1, 1913, if acquired prior thereto less any depreciation sustained. A gift of real estate to a city to be maintained perpetually as a public park is not an allowable deduction. The proportionate share of contributions made by a partnership to corporations or associations of the kind included in (a) above and to the special fund for vocational rehabilitation specified in (b) may be claimed as deductions in the personal returns of the partners to an amount which, added to the amount of such contributions made by the partner individually, is not in excess of 15% of the partner’s net income, computed without the benefit of the deduction for such contributions. However, the contributions made by the partnership shall not be deducted from its gross income in ascertaining the amount of its net income to be reported on form 1065 (revised). See article 321.

(T. D. 2079, February 11, 1920)

Capital Stock Tax

Amendment of article 41 and article 102, regulations 50, relative to the method of computing the fair average value of the capital stock of insurance companies for the purpose of the capital stock tax imposed by section 1000, revenue act of 1918.

Subdivision (b), section 1000, title X of the revenue act of 1918, provides, as to the special excise tax imposed by that section:

In computing the tax in the case of insurance companies, such deposits and reserve funds as they are required by law or contract to maintain or hold for the protection or payment to or apportionment among policyholders shall not be included.

In order to give effect to this provision, article 41 and article 102 of regulations 50, relating to the capital stock tax under the revenue act of 1918, are hereby amended to read as follows:

Art. 41. Stock insurance companies.—Insurance companies having a

221
capital stock, as distinguished from mutual insurance companies, are taxable upon the same basis as other corporations, whether domestic or foreign, except that in computing the tax, such reserve funds (which include deposits) as they are required by law or contract to maintain or hold for the protection of or payment to or apportionment among policyholders are not to be included. In the case of such companies, the tax will be computed by deducting from the total book value of the assets the amount of the actual liabilities and legal reserves, unless the facts in the case indicate that the book value of the assets is substantially different from their fair market value, in which case it is permissible to make proper adjustment. In a case requiring such adjustment, the market value of the shares of stock as shown by exhibit B or the net earnings of the company as shown by exhibit C shall be considered, as well as the market value of the assets.

Axt. 102. Fair value of capital stock.—The fair average value of capital stock for the purpose of determining the amount of the capital stock tax must not be confused with the market value of the shares of stock where it may be necessary to determine such value under other provisions of the revenue laws. The fair average value of capital stock, the statutory basis of the tax, is not necessarily the book value, or a value based on prices realized in current sales of shares of stock, or even the earning value, although it is often more directly dependent upon the last. It should usually be capable of appraisal by officers of the corporation having special knowledge of the affairs of the corporation and general knowledge of the line of business in which it is engaged. Provision is accordingly made in exhibit C of form 707 (revised) for the tentative determination of the fair value of the capital stock by capitalizing the net earnings of the corporation on a percentage basis fixed by its officers as fairly representing the conditions obtaining in the trade and in the locality. If possible, illustrations drawn from similar corporations should be cited in support of the percentage adopted. But such fair value, except in the case of insurance companies, must not be set at a sum less than the reconstructed book value shown by exhibit A, unless the corporation is materially affected by extraordinary conditions which support a lower figure, which, however, under any conditions could only be slightly less than such reconstructed book value. In any such cases a full explanation must accompany the return. The commissioner will estimate the fair value of the capital stock in cases regarded as involving any understatement or undervaluation. For the method of computing the fair average value of capital stock in the case of insurance companies see article 41, as amended.
Students' Department
EDITED BY SEYMOUR WALTON
(ASSISTED BY H. A. FINNEY)

INSTITUTE EXAMINATIONS, NOVEMBER, 1919

In regard to the following attempt to present the correct solutions to the questions asked in the examination held by the American Institute of Accountants in November, 1919, the reader is cautioned against accepting the solutions as official. They have not been seen by the examiners—still less endorsed by them.

THEORY AND PRACTICE, PART 2

Answer Questions 1 and 2 and Five Others

Question 1:
A and B trading in partnership decide to admit C as from January 1, 1919.
They agree with C as follows:
C is unable to contribute any tangible assets as his capital investment, but agrees to allow his share of the profits to be credited to his capital account until he shall have one-fifth interest. C is to share profits and losses to the extent of one-fifth.
C is to receive a salary of $3,000 per annum, payable monthly, in addition to his share of profits.

Balance-sheet of A and B at December 31, 1918, is as follows:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>Accounts payable...........$8,000</td>
</tr>
<tr>
<td>Accounts receivable...........10,000</td>
<td>Capital accounts</td>
</tr>
<tr>
<td>Merchandise</td>
<td>A .........................$10,000</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>B ..........................5,000</td>
</tr>
<tr>
<td>Good will</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

During the six months ended June 30, 1919, the business has sustained unusual losses, and it is decided to dissolve the partnership.
The balance-sheet at that date is as follows:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>Accounts payable...........$12,500</td>
</tr>
<tr>
<td>Accounts receivable...........12,500</td>
<td>Capital accounts</td>
</tr>
<tr>
<td>Merchandise</td>
<td>A .........................$10,000</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>B ..........................5,000</td>
</tr>
<tr>
<td>Good will</td>
<td></td>
</tr>
<tr>
<td>Deficit</td>
<td>Being loss on trading for</td>
</tr>
<tr>
<td></td>
<td>six months................</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$27,500</td>
</tr>
</tbody>
</table>

Accounts receivable were sold for $9,000, the buyer assuming all responsibility for collection and loss, if any.
The Journal of Accountancy

Merchandise realized $6,500 and furniture and fixtures $500.
You are asked to make an examination of the accounts from January 1st and to prepare statements showing the realization of assets, the adjustment of the partnership accounts and the distribution of the funds.
In your examination you find that C has not drawn his salary for four months, and that B has advanced to the partnership $2,500 by way of a temporary loan. These liabilities you find are included in the sum of $12,500, shown as accounts payable.
C is ascertained to be worthless.

Answer to Question 1:

REALIZATION STATEMENT

<table>
<thead>
<tr>
<th>Book value</th>
<th>Loss or gain</th>
<th>Cash realized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash (already realized)</td>
<td>$500.00</td>
<td>.....</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>12,500.00</td>
<td>$3,500.00</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>1,500.00</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Good will</td>
<td>2,500.00</td>
<td>2,500.00</td>
</tr>
</tbody>
</table>

Merchandise | 5,000.00 | 1,500.00* | 6,500.00 |

Net result | $22,000.00 | $5,500.00 | $16,500.00 |

Loss on trading per balance-sheet | $5,500.00 |
Loss on liquidation | 5,500.00 |

Total loss to be charged to partners | $11,000.00 |

As nothing is said as to the ratio in which A and B share their four-fifths of profits and losses, it must be assumed that they share them equally, two-fifths to each.
C's unpaid salary would be paid first, after all the creditors had been satisfied; then B's loan; and finally any balances remaining at the credit of any of the partners, provided that, if the capital account of either B or C has a debit balance when the losses are charged off, the credit for loan or salary must be offset against it.
If C has a final debit balance, it is a loss to A and B and must be charged off equally between them.
The following shows the adjustment of the partners' accounts and the distribution of the funds:

LIQUIDATION STATEMENT

<table>
<thead>
<tr>
<th>Balances before dividing losses</th>
<th>Total</th>
<th>A cap.</th>
<th>B cap.</th>
<th>B loan</th>
<th>C salary</th>
<th>Creditors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise</td>
<td>$27,500</td>
<td>$10,000</td>
<td>$5,000</td>
<td>$2,500</td>
<td>$1,000</td>
<td>$9,000</td>
</tr>
<tr>
<td>Total losses</td>
<td>11,000</td>
<td>4,400</td>
<td>4,400</td>
<td>.....</td>
<td>2,200</td>
<td>.....</td>
</tr>
<tr>
<td>C's account charged off</td>
<td>16,500</td>
<td>$5,000</td>
<td>$600</td>
<td>$2,500</td>
<td>$1,200 Dr.</td>
<td>$9,000</td>
</tr>
<tr>
<td>Final balances</td>
<td>16,500</td>
<td>5,000</td>
<td>0</td>
<td>2,500</td>
<td>0</td>
<td>9,000</td>
</tr>
<tr>
<td>Cash payments</td>
<td>16,500</td>
<td>5,000</td>
<td>.....</td>
<td>2,500</td>
<td>.....</td>
<td>9,000</td>
</tr>
</tbody>
</table>

224
**Students' Department**

**Question 2:**

The Pan-American Chemical Company, a New York corporation, owns a plant in Chile where nitrate of soda is manufactured and shipped to the United States. The accounts in Chile are kept in the local currency (pesos), and the following is a summary of the transactions during 1918:

1/1/18 New York remitted by telegraphic transfer $30,000, which realized 120,000 pesos.
4/1/18 New York remitted $30,000, realized 150,000 pesos.
7/1/18 New York remitted $30,000, realized 180,000 pesos.
10/1/18 New York remitted $30,000, realized 150,000 pesos.

There was paid in wages for plant construction 120,000 pesos.
There was paid for operating 300,000 pesos.
At December 31, 1918, the unpaid payroll for operating labor amounted to 60,000 pesos, and one-sixth of the nitrate produced during the year remained in inventory.

You may assume that the production, construction and shipments were spread evenly over the whole twelve months, and that the only element entering into costs of production and construction in Chile was labor.

The average quoted exchange rates in Chile and New York were as follows:
1/1/18 to 6/30/18.................................3 pesos = $1.00
7/1/18 to 12/31/18.................................5 pesos = 1.00

At the close of business 12/31/18 the rate suddenly dropped to 6 pesos = $1.00.
You are required to show the accounts affected in both pesos and American dollars and to prepare a trial balance as at 12/31/18, for the purpose of incorporating the Chilean accounts on the New York books.

**Answer to Question 2:**

Fixed assets are not affected by variations in exchange after payment is made for them; they continue to be carried at what they cost originally, as far as exchange goes. The value of floating assets on hand must be adjusted in accordance with the rate of exchange prevalent when a statement is prepared, and the same is true of floating liabilities.

In determining the cost of both construction and operation, the principle of "first in—first out" is adopted—that is, the items paid for out of the first remittance are charged at the rate of that remittance until it is exhausted; then the second remittance is taken up, and so on.

<table>
<thead>
<tr>
<th>Cash</th>
<th>$</th>
<th>Pesos</th>
<th>$</th>
<th>Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/18 From H. O.</td>
<td>30,000</td>
<td>120,000</td>
<td>3/31/18 Operations</td>
<td>22,500</td>
</tr>
<tr>
<td></td>
<td>30,000</td>
<td>120,000</td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td>4/1/18 From H. O.</td>
<td>30,000</td>
<td>150,000</td>
<td>6/30/18 Operations</td>
<td>18,000</td>
</tr>
<tr>
<td></td>
<td>30,000</td>
<td>150,000</td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Balance</td>
<td>6,000</td>
</tr>
<tr>
<td></td>
<td>30,000</td>
<td>150,000</td>
<td></td>
<td>30,000</td>
</tr>
</tbody>
</table>

...225
The Journal of Accountancy

Cash

<table>
<thead>
<tr>
<th>Date</th>
<th>Balance</th>
<th>Operations</th>
<th>Construction</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/1/18</td>
<td>$6,000</td>
<td>$4,500</td>
<td>$7,500</td>
<td>$9,000</td>
</tr>
<tr>
<td>7/1/18</td>
<td>$30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9/30/18</td>
<td></td>
<td>$11,250</td>
<td>$67,500</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$3,750</td>
<td>$22,500</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$90,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Balance</th>
<th>Operations</th>
<th>Construction</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/1/18</td>
<td>$15,000</td>
<td>$5,000</td>
<td>$30,000</td>
<td>$35,000</td>
</tr>
<tr>
<td>10/1/18</td>
<td>$90,000</td>
<td></td>
<td></td>
<td>$120,000</td>
</tr>
<tr>
<td>12/31/18</td>
<td>$180,000</td>
<td>$5,000</td>
<td>$30,000</td>
<td>$210,000</td>
</tr>
</tbody>
</table>

12/31/18 Balance $30,000 $180,000

If there had been no fall in exchange the balance on hand in pesos would have been worth $35,000. Owing to the variations in exchange the balance is worth only $30,000, and an entry must be made in the dollar column only, to adjust the difference by a charge of $5,000 to exchange account. The same explanation covers the two other exchange entries.

Wages Payable

<table>
<thead>
<tr>
<th>Date</th>
<th>Operations</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/18</td>
<td>$10,000</td>
<td>$60,000</td>
</tr>
</tbody>
</table>

Operations

<table>
<thead>
<tr>
<th>Date</th>
<th>Balance</th>
<th>Operations</th>
<th>Shipments</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/31/18</td>
<td>$22,500</td>
<td>$90,000</td>
<td>$150,000</td>
<td>$272,500</td>
</tr>
<tr>
<td>6/30/18</td>
<td>$18,000</td>
<td>$90,000</td>
<td>$150,000</td>
<td>$266,000</td>
</tr>
<tr>
<td>9/30/18</td>
<td>$4,500</td>
<td>$22,500</td>
<td>$30,000</td>
<td>$57,000</td>
</tr>
<tr>
<td>9/30/18</td>
<td>$11,250</td>
<td>$67,500</td>
<td></td>
<td>$78,750</td>
</tr>
<tr>
<td>12/31/18</td>
<td>$5,000</td>
<td>$30,000</td>
<td></td>
<td>$35,000</td>
</tr>
</tbody>
</table>

Wages payable

Exchange to adjust $18,750

<table>
<thead>
<tr>
<th>Date</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/18</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

This balance is the inventory of nitrate on hand.
Students' Department

**Construction**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>$</th>
<th>Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/31/18</td>
<td>Cash</td>
<td>7,500</td>
<td>30,000</td>
</tr>
<tr>
<td>6/30/18</td>
<td>Cash</td>
<td>6,000</td>
<td>30,000</td>
</tr>
<tr>
<td>9/30/18</td>
<td>Cash</td>
<td>1,500</td>
<td>7,500</td>
</tr>
<tr>
<td>9/30/18</td>
<td>Cash</td>
<td>3,750</td>
<td>22,500</td>
</tr>
<tr>
<td>12/31/18</td>
<td>Cash</td>
<td>5,000</td>
<td>30,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>23,750</td>
<td>120,000</td>
</tr>
</tbody>
</table>

**Home Office**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>$</th>
<th>Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/30/18</td>
<td>Shipments</td>
<td>50,000</td>
<td>150,000</td>
</tr>
<tr>
<td>12/31/18</td>
<td>Shipments</td>
<td>30,000</td>
<td>150,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>50,000</td>
<td>300,000</td>
</tr>
</tbody>
</table>

**Exchange**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>$</th>
<th>Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/31/18</td>
<td>Home office</td>
<td>10,000</td>
<td>60,000</td>
</tr>
<tr>
<td></td>
<td>Cash</td>
<td>5,000</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>15,000</td>
<td>70,000</td>
</tr>
</tbody>
</table>

**Trial Balance**

<table>
<thead>
<tr>
<th>Description</th>
<th>Dollars</th>
<th>Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>30,000</td>
<td>180,000</td>
</tr>
<tr>
<td>Wages payable</td>
<td>10,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Inventory, nitrate</td>
<td>10,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Construction</td>
<td>33,750</td>
<td>120,000</td>
</tr>
<tr>
<td>Home office</td>
<td>50,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Exchange</td>
<td>3,750</td>
<td>360,000</td>
</tr>
<tr>
<td></td>
<td>63,750</td>
<td>63,750</td>
</tr>
</tbody>
</table>

On the New York books all the items would be reversed, being credit where the above are debit and debit where these are credit. The dollars would be in the last, or significant, columns, and the pesos in the first, or explanatory, columns, and the home office account would be the Chile account.
The Journal of Accountancy

Question 3:

If in consolidating the accounts of a holding company and its subsidiary companies, you find that in the case of one of the subsidiary companies the holding company owns only 60% of its voting stock, state briefly how you would treat this subsidiary company's accounts in the consolidated balance-sheet and why your proposed treatment reflects the true financial position of the combined companies more clearly than other methods with which you may be familiar.

Answer to Question 3:

When a holding company does not own substantially all the stock of a subsidiary company, it is usually better to carry the stock of the subsidiary as "investment in subsidiary companies controlled."

The object of a consolidated statement is to show the true condition of all the companies as one enterprise, by combining the assets and liabilities, eliminating those inter-company items which are at the same time assets in one company and liabilities in another company of the combination.

When there are minority stockholders of a subsidiary company, they have an interest in the assets and share in the liabilities of their company to a degree proportionate to the amount of stock they hold. The consolidation is concerned in reality with only its own share of these assets and liabilities. However, in the ordinary form of a consolidated statement, the consolidation is represented as owning all the admitted assets and as owing all the admitted liabilities, and in addition as being indebted to the minority stockholders. This plan unduly swells both the assets and the outside liabilities, for the minority stockholders are outsiders to the combination. When the ownership of the stock is almost complete, the proportion due to the minority stockholders is so small that this inflation of debits and credits may be ignored, especially when the holding company stands ready at any time to take up the minority stock at book value. But when the minority interest is large this overstatement becomes more or less misleading.

In the case in question the consolidated balance-sheet should carry the 60% stock at its book value as "investment in subsidiary company controlled," and should also show separately any account due to or from that company.

Question 4:

From the following comparative balance-sheets of the ABC Company at December 31, 1917, and December 31, 1918, prepare a short statement showing the funds realized during the year and the disposition made thereof:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Dec. 31, 1917</th>
<th>Dec. 31, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital assets</td>
<td>$600,000.00</td>
<td>$900,000.00</td>
</tr>
<tr>
<td>(Replacement values as shown by appraisal were used at December 31, 1918.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>1,000,000.00</td>
<td>1,160,000.00</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>850,000.00</td>
<td>800,000.00</td>
</tr>
<tr>
<td>Cash</td>
<td>200,000.00</td>
<td>550,000.00</td>
</tr>
<tr>
<td>Deferred charges</td>
<td>20,000.00</td>
<td>10,000.00</td>
</tr>
</tbody>
</table>

$2,670,000.00 $3,420,000.00
**Students' Department**

**Liabilities:**

<table>
<thead>
<tr>
<th></th>
<th>Dec. 31, 1917</th>
<th>Dec. 31, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital stock</td>
<td>$1,000,000.00</td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Bonds (issued at par)</td>
<td></td>
<td>500,000.00</td>
</tr>
<tr>
<td>Capital surplus</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank loans</td>
<td>750,000.00</td>
<td>400,000.00</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>500,000.00</td>
<td>600,000.00</td>
</tr>
<tr>
<td>Reserve for...</td>
<td>100,000.00</td>
<td>200,000.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surplus</td>
<td>320,000.00</td>
<td>570,000.00</td>
</tr>
<tr>
<td></td>
<td>$2,670,000.00</td>
<td>$3,420,000.00</td>
</tr>
</tbody>
</table>

**Note.**—The profits for the year were $450,000 and dividends were paid during the year amounting to $200,000. The sum of $100,000 was charged to operation for depreciation during the year, and $50,000 was charged against the reserve for replacements.

**Answer to Question 4:**

**THE ABC COMPANY**

**Exhibit A**

**Comparative Balance-Sheets**

<table>
<thead>
<tr>
<th>Assets</th>
<th>Dec. 31, 1917</th>
<th>Dec. 31, 1918</th>
<th>Decrease</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital assets</td>
<td>$600,000.00</td>
<td>$900,000.00</td>
<td>$300,000.00</td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>1,000,000.00</td>
<td>1,160,000.00</td>
<td>160,000.00</td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>850,000.00</td>
<td>800,000.00</td>
<td>50,000.00</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>200,000.00</td>
<td>550,000.00</td>
<td>350,000.00</td>
<td></td>
</tr>
<tr>
<td>Deferred charges</td>
<td>20,000.00</td>
<td>10,000.00</td>
<td>10,000.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$2,670,000.00</td>
<td>$3,420,000.00</td>
<td>$600,000.00</td>
<td>$810,000.00</td>
</tr>
</tbody>
</table>

Net increase in assets........... $750,000.00

**Capital, Liabilities and Reserves**

<table>
<thead>
<tr>
<th></th>
<th>Dec. 31, 1917</th>
<th>Dec. 31, 1918</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital stock</td>
<td>$1,000,000.00</td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Bonds</td>
<td></td>
<td>500,000.00</td>
</tr>
<tr>
<td>Capital surplus</td>
<td>750,000.00</td>
<td>150,000.00</td>
</tr>
<tr>
<td>Bank loans</td>
<td>500,000.00</td>
<td>400,000.00</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>500,000.00</td>
<td>600,000.00</td>
</tr>
<tr>
<td>Reserve for...</td>
<td>100,000.00</td>
<td>200,000.00</td>
</tr>
<tr>
<td>Surplus</td>
<td>320,000.00</td>
<td>570,000.00</td>
</tr>
<tr>
<td></td>
<td>$2,670,000.00</td>
<td>$3,420,000.00</td>
</tr>
</tbody>
</table>

Net increase in capital, liabilities and reserves. $750,000.00
Although the capital assets have increased $300,000 during the year, the statement of application of funds should show only the increase caused by purchases during the year and not the increase caused by the book entry adjusting the assets to the appraisal value.

This adjusting entry included a credit to capital surplus.......
and a credit to the reserve for depreciation, which may be computed thus:

Balance at Dec. 31, 1918
(per problem).................. $200,000.00
Consisting of balance at
Dec. 31, 1917............. $100,000.00
Less debit for replacements
during 1918............. 50,000.00
Balance .................. $50,000.00
Add depreciation charged to
operations at Dec. 31, 1918
Balance before appraisal
adjustment entry........... 150,000.00
Appraisal adjustment credit
to reserve .................. 50,000.00
Total credits in appraisal adjustment entry............. $200,000.00

The debit to the capital assets accounts must therefore have been $200,000. Now, since the balance after making this entry was.................. $900,000.00
and since the debit for the appraisal adjustment was..... 200,000.00

The balance before the adjustment must have been.............. $700,000.00
Consisting of balance at Dec. 31, 1917........... $600,000.00
Less replaced assets closed out to reserve. 50,000.00
Net amount .................. 550,000.00

Purchases during 1918.............. $150,000.00

THE ABC COMPANY

STATEMENT OF APPLICATION OF FUNDS
Year Ended December 31, 1918

Funds provided:
By operating profits:
Net profit .................. $450,000.00
Add back depreciation charged to operations .................. 100,000.00
By sale of bonds .................. $550,000.00
Total funds provided .................. $1,050,000.00
Which were applied as follows:
To payment of dividends ........................................ $200,000.00
To purchase of capital assets .................................... 150,000.00
To net increase in working capital and deferred charges (exhibit C) .................................. 700,000.00
Total (as above) .......................................................... $1,050,000.00

Exhibit C
Schedule of Working Capital and Deferred Charges

<table>
<thead>
<tr>
<th></th>
<th>Dec. 31, 1917</th>
<th>Dec. 31, 1918</th>
<th>Decrease work. cap.</th>
<th>Increase work. cap.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventories</td>
<td>$1,000,000.00</td>
<td>$1,160,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>850,000.00</td>
<td>800,000.00</td>
<td>$50,000.00</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>200,000.00</td>
<td>550,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total current assets</td>
<td>$2,050,000.00</td>
<td>$2,510,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank loans</td>
<td>$750,000.00</td>
<td>$400,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>500,000.00</td>
<td>600,000.00</td>
<td>100,000.00</td>
<td></td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>$1,250,000.00</td>
<td>$1,000,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working capital</td>
<td>$800,000.00</td>
<td>$1,510,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in working capital</td>
<td></td>
<td></td>
<td>710,000.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$860,000.00</td>
</tr>
<tr>
<td>Deferred charges</td>
<td>$20,000.00</td>
<td>$10,000.00</td>
<td></td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in working capital</td>
<td></td>
<td></td>
<td>$710,000.00</td>
<td></td>
</tr>
<tr>
<td>Less decrease in defer'd charges</td>
<td></td>
<td></td>
<td>10,000.00</td>
<td></td>
</tr>
<tr>
<td>Net increase</td>
<td></td>
<td></td>
<td></td>
<td>$700,000.00</td>
</tr>
</tbody>
</table>

Question 5:
Is there any distinction between the figure shown as "invested capital" in a corporation's excess profits tax return and the capital value upon which capital stock tax is calculated?

Answer to Question 5:
There is a very decided distinction between the figures shown as invested capital in the excess profits tax return of a corporation and the capital value upon which the capital stock tax is calculated. In fact, these figures have nothing whatever in common. The treasury department states: "As
the invested capital is based upon the actual investment of the stockholders in the corporation, irrespective of the present value of its assets, and in the case of the capital stock tax the fair value looks to the present value of the corporation's assets, irrespective of the amount of the investment of the stockholders therein, the amount determined as the fair value of the capital stock for the purpose of the capital stock tax can have no bearing upon the determination of invested capital." Both these terms, being used in taxing statutes, must be interpreted in the way in which they are employed by the legislative body and subject to any express limitations, qualifications or definitions enacted by the legislative body. The computation of the capital stock tax is based upon "the fair average value of its capital stock for the preceding year ending June 30." Since the statute does not purport to define "fair average value" these words must be defined with reference to their common meaning, and elements of fair value must of course be considered, with reference to the stated time. Cost is not always the same as value but is evidence of value. Value implies not only the amount of money equivalent in ordinary circumstances, but also the possibility of realizing a money equivalent in the future. Thus present value must be increased or reduced in view of the expectation of a future value greater or smaller than the amount which could be realized at present. Since the stock represents the ultimate ownership of all the property of the corporation, the value of the stock will depend upon the present value of all the assets of the corporation. Since the stock represents the right to receive the profits earned by the corporation, the value of the stock will reflect the possibility of profits in the business of the corporation. Therefore, the fair average value of the stock must be estimated after a consideration of the present fair value of the assets of the corporation, which may be more or less than cost, and must include all assets whether carried on the books or not. It must also reflect a consideration of the price of the stock fixed by buyers and sellers in transfers actually made during the time in question and of the income-producing possibilities of the stock, as indicated by earnings of the company in the past and the probability of earnings in the future. All these factors must of course be considered in relation to the average for the preceding year ending June 30th. None of these questions of value is involved in the question of invested capital.

On the other hand, the statute attempts to define the invested capital by specifying exactly what shall be included and what shall be excluded. Therefore the common meaning of the words "invested capital" is not at all material, but general principles and ordinary standards may be employed only to interpret the words used in the statutory limitations and to explain deficiencies, omissions for ambiguities in the statutory provisions. Not to refer to the limitations specifically, it may be stated that the statute provides in general that the invested capital consists of money or money-equivalent actually invested in the business of the corporation by the stockholders, together with amounts earned in the business and distributable to the stockholders but allowed by them to remain employed in the business. This general statement is subject to limitations with respect to the rela-

232
Students' Department

tive amount of certain kinds of money-equivalent (intangible property) paid in by the stockholders, and subject further to the restrictions with respect to the employment of the invested capital during the taxable year in certain assets described as inadmissible. It will be seen that this definition refers to the acquisition of capital and has no reference to present values of any property, which is the characteristic feature of the value used for the capital stock tax.

The invested capital involves the value of property only as to property invested in the business by the stockholders instead of money, and consequently the money value at the time of the investment determines the extent to which such property should represent invested capital. It is, however, possible that the determination of accumulated profits may involve property valuation. Here the general principles apply, to the effect that profits are not earned unless adequate provision has been made for the disappearing value of property which is being exhausted in the business, and that a mere increase in the value of property is not a profit until it has been realized. The fact that intangible property may be included in the invested capital only to an amount arbitrarily fixed by the statute with reference to the par value of outstanding capital stock may result in a great discrepancy between the invested capital and the value of the property invested in the business, even as of the time of the investment. It is obvious that the difference between the time considered in fixing the invested capital and the specified period for fixing the value of the shares of stock is apt to result in discrepancies even more substantial. (Answered by Kixmiller & Baar, counsel for Commerce Clearing House.)

Question 6:

In setting up the balance-sheet of a corporation which has an issue of 100,000 shares of stock of no par value, but a stated value of $5 a share, and an excess of assets over liabilities of $1,500,000, how would you show the capital on the balance-sheet?

Answer to Question 6:

"Stated value" means the value at which the stock was issued. Since this value is $5 a share the stated capital is $500,000. The net worth being $1,500,000 there must be $1,000,000 of earned profits left in the business—in other words, there is a surplus of that amount. This surplus is additional capital and could be transferred to the credit of capital stock. The objection to doing this by an actual entry is that it would then become permanent fixed capital, and the fact that it is earned instead of being paid in would be overlooked. It is therefore better to show the capital as two items, thus:

Capital:

| Capital stock (no par value), 100,000 shares issued at | $500,000.00 |
| Surplus accumulated from profits | 1,000,000.00 |

Total capital | $1,500,000.00 |


Question 7:
State how you would show on the balance-sheet, if at all, consigned goods held for account of a principal.

Answer to Question 7:
As a consignee has no title to the goods consigned to him, he cannot include them among his assets, and as he does not owe anything to the consignor until the goods are sold, there is no item to be included in his liabilities. Therefore there is no reason for the appearance of unsold consignments on the balance-sheet in any way.

If advances have been made or expenses paid on account of any consignments, the amount would appear as an asset in the balance-sheet under the title "advances on consignments."

Question 8:
In which section of the balance-sheet and in what order would you show the following items: wages, accounts payable, taxes, notes payable, interest accrued payable?

Answer to Question 8:
It is assumed that wages and taxes are both accrued accounts payable, not yet due.

All the items are current liabilities and would appear on the balance-sheet as follows:

Current liabilities:
Notes payable ........................................................... xxx
Accounts payable .................................................. xxx
Accrued taxes ........................................................... xxx
Accrued interest ....................................................... xxx
Accrued wages ........................................................... xxx

Question 9:
Would you advise showing profits for prospectus purposes before or after deducting war profits and income taxes? State your reasons briefly.

Answer to Question 9:
Before deducting the taxes. The taxes do not affect the profits of the business as an operating enterprise. The theory is that a business makes certain profits from its normal operations and then shares those profits with the government in return for the benefits conferred by the government. Real estate and personal property taxes are payable whether a concern does or does not make profits, but war profits and income taxes are payable only in case there are profits out of which they can be paid. A prospective investor knows that if the taxes are heavy it must be that the profits are correspondingly large, and that he will get his share in any event.

Bonus to Salesmen

Editor, Students' Department:
Sir: Would you kindly favor me with your opinion as to the solution of the following problem given in the June, 1919, C. P. A. examination (New York) in practical accounting?
Students' Department

"The president of a corporation engaged four salesmen on a salary and profit-sharing basis. To one he gave 40% of the profits, to the other three 20% each. The profits of the corporation were $102,608.18. Show proportion of profits payable to each salesman."

Inasmuch as the profit-sharing basis is not given in the problem can you point out anything further that can be submitted in answer, but the simple proportions of 40-20-20-20 of $102,608.18?

Your reply will be very much appreciated.

Very truly yours,
H. K.

Contracts with employees giving them a certain percentage of the profits are subject to either of two interpretations. If they are considered division of profits they are calculated on the net profits as they appear before the bonus is deducted. If they are to be treated as salary, they must be based on the net profits after they have been deducted.

In the case in point they could scarcely have been intended to be part of the disposition of profits, since they amount to 100%, so that the four salesmen would receive all the profits, however large, and the stockholders would get nothing. On this basis, also, if there had been a fifth salesman included, the profits divided would be greater than those earned.

If considered salaries the profits as shown would be the actual net profits plus 100% to be given as bonus salaries. That is, $102,608.18 would be 200% of the net profits. Then the net profits would be 100%, or

\[
\text{Of this the first salesman would get 40%} = \frac{\text{40%}}{100%} \times 102,608.18 = 40,923.26
\]

\[
\text{The second would get 20%} = \frac{\text{20%}}{100%} \times 102,608.18 = 20,521.64
\]

\[
\text{The third would get 20%} = \frac{\text{20%}}{100%} \times 102,608.18 = 20,521.64
\]

\[
\text{The fourth would get 20%} = \frac{\text{20%}}{100%} \times 102,608.18 = 20,521.64
\]

\[
\text{and there would be left net profits of} = 51,304.09
\]

\[
\text{Total} = 102,608.18
\]

Contracts of this kind should always specify exactly how they are to be construed, whether as division of profits or as expense in the form of additional salaries.

Another Bonus Case

Editor, Students' Department:

Sir: May I presume on your kindness to ask you to let me know what is the correct way to handle income and excess profit tax payments in a case like the following, at the same time giving the reasons for so treating the charge?

A corporation makes a contract with an employee to pay him a salary of, say, $100.00 a month, plus 5% of the net profits up to $8,500, plus 50% of the net profits in excess of $8,500.00.

The income and profits tax, we will say, is $1,800.00 and the net profit (income tax $1,800.00 being first deducted) is $12,000.00 for the year 1918.

Is that employee's bonus computed on $12,000 or on $13,800?
As the auditor of this company I was called upon to determine his bonus, and I computed it on $12,000.00, that is 5% of $8,500.00.  
Plus 50% of $3,500.00

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,175.00</strong></td>
</tr>
</tbody>
</table>

He claims that the profits are $13,800.00, and he is suing the company for a settlement on that basis. He is suing on the opinion of a C. P. A., who claims that income and excess profit taxes are not deductible from profits, or, what amounts to the same thing, do not affect profits.

As there can be two honest opinions on the subject totally at variance and by members of the same association, the American Institute of Accountants, I would appreciate it very much to have your official opinion on this point.

I find at least six New Orleans members of your association who think as I do.

Thanking you in advance for your reply, I beg to remain,

Yours respectfully,

R. J. D.

Your letter states a problem that cannot be solved without a knowledge of the intentions of the parties when they made the contract.

The question hinges on the point of what the additional remuneration to the employee was considered to be. It might have been a disposition of profits, as you have treated it, or it might have been a salary based on the success of the year's business.

Your letter says "a salary of $100 a month plus 5%, etc.," which distinctly treats both the bonuses as part of the salary. If this were so, the total amount paid the employee would have been an expense of operation, and as such would have reduced the profits and therefore the income tax. This is the logical interpretation of the contract, as an employee, as such, has no claim on the net profits but may have a salary that is measured by the profits that he has helped to make. If this is the case, his bonus must be deducted before the tax is found, and at the same time the tax must first be deducted before his bonus is fixed. How that is done was shown in this department in the May, 1919, issue.

As it seems to have been agreed that the bonus is a disposition of profits, the only question to be answered is whether or not the tax is an expense to be deducted before the bonus is calculated. In my opinion there is no doubt about it. If it is not an expense it must be an asset. An expenditure of money must be one or the other.

Again, if the tax is not an expense, the net profits of the year would be $13,800. Suppose that there were no question of a bonus or any further expense, and that the surplus had an old balance of $1,200, making the new balance $15,000? Does any one claim that the company could declare a dividend of $15,000? But if provision for the tax of $1,800 must be made before the profits are divided among the stockholders, how can it be ignored before the profits are divided with the employee? It would be interesting to know how the experts for the employee will answer that question.

Viewing the bonus as a disposition of profits, I am of the opinion that your treatment of the case was correct.
Book Reviews


When this perennial publication, Income Tax Procedure, is examined one must first of all admire the splendid organization of material and effort during the year which makes possible its prompt issue. For popular use and wide appeal the book could scarcely be improved. In it there is something for the novice, something for the expert, something for the average professional man who is neither the one nor the other.

Without wishing to impose too much upon the author, it is felt that he could perform a still further service to our profession by preparing for next January, in addition to his regular issue, a tax manual designed solely for the expert and the near-expert. Such persons are interested chiefly in what the author has to say about the law and the practice under it. For them it would not be necessary to print the law, the regulations, reported decisions and copies of the forms. While it is convenient to have these matters under the same cover with the author’s comments, the space required could be much more profitably devoted to comments alone. Possibly the publishers could arrange to furnish with each volume (on a cost-plus basis) copies of the official publications. If that practice were adopted, it would be necessary to quote exactly only when the author’s comments turned upon precise terminology.

The most notable departures from the 1919 issue are the printing of a separate volume for the excess profits tax procedure and the inclusion of chapters on the New York state income tax (on individuals) and the New York state franchise tax (on corporations). Among minor improvements may be mentioned a simplified table of contents and section indexes to the current laws. The principal introductory chapters are retained, and are as helpful as heretofore in furnishing the necessary perspective through which to view the complex details of the present law and the modifications of preceding ones.

In view of the excellences of the book, it may perhaps be ungracious to ask, like Oliver Twist, for more, but would it not be useful to insert in the next issue an outline of procedure to be followed in preparing returns? Such a schedule could cover in the first place a detailed list of facts to be ascertained both in cases where previous returns had not been prepared by the present accountants and in cases of continuing engagements. An outline of this sort calling specifically for analyses of accounts in accordance with the information required on the returns would be of great suggestive value, and would assist materially in the preparation of reconciliation statements such as that proposed on page 118 of the excess profits volume.

Among the timely topics covered are the comparison of the New York
The Journal of Accountancy

state laws with the federal law and the discussion of amortization of plant used for war purposes. In lighter vein, there is the query whether the value of stolen liquor can properly be deducted, and whether, after all, there can be a market price for contraband property. It is still necessary for the author to complain of over-centralization in the administration of the law—a condition which is likely to persist until republics cease to be ungrateful and become willing to meet commercial competition in the matter of salaries. In the discussions of taxation of capital gains, of the expedient known as the "closed transaction" and of the income from stock dividends there are sound economics and sound law. The author reaches a high moral plane in commenting on the duty of civilians to report as taxable income the money value of perquisites, such as the personal use of automobile, railroad passes and the like.

The general plan of the 1920 book is similar to that of preceding issues. There are appendixes containing illustrative returns, copies of forms and complete copies of the laws. The 52-page double-column index of the income tax book and a similar 27-page index of the excess profits book are as complete as could be desired. Much practical advice throughout the volumes will assist in properly resolving reasonable doubts in favor of the taxpayer, but no one will be aided by it in evading taxation.

One of the helpful features is the author's frankness in disagreeing with certain regulations. For instance, when one hesitates to be bound by article 857 because it seems unsupported by the law, it is a moral support, at least, to find the author branding the article as erroneous. The discussion of the troublesome sections 325 and 326 is much more enlightening in the 1920 edition than in that for 1919. It is difficult to see how the text on page 198 of the excess profits book could be made clearer. The formula for ascertaining invested capital is substantially the same as in the 1919 edition.

One doesn't need to agree with the author in all points in order to put the book to practical use. Matters of theory, such as the proper way to record treasury stock, matters of law like the seeming discrimination by the treasury against fiscal year corporations and matters of economics in the levying of extra taxes on corporate forms of organization, are subject to reasonable difference of opinion. Many readers will note minor points which could perhaps have been more adequately covered. For instance, why not add an illustration in the case of the payment by a vendee, to a vendor, of taxes on the vendor's profits from the sale? The calculation involved would be roughly analogous to that wherein an employee is to bear a proportionate share of the taxes remaining after his compensation has been charged as an expense. Again, the author might have summarized the arguments made by the secretary of the treasury in the latter's suggestion that section 200 be amended. Possibly this latter omission was intentional in order to avoid suggesting ways whereby the personal service corporation could be misused in escaping surtaxes. Differences of opinion as to theories and differences in practice on minor points are immaterial when the value of the edition as a whole is considered.

Harold Dudley Greeley.

238
Book Reviews


Probably most of us have a vague impression that during the last few years there has been quite an increase in business courses offered in the public high schools of the country. The figures compiled by Mr. Lyon in this monograph will doubtless be surprising, nevertheless. He gives the number of commercial students in private and public schools as follows:

<table>
<thead>
<tr>
<th></th>
<th>1893</th>
<th>1915</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private commercial schools</td>
<td>115,748</td>
<td>183,286</td>
<td>58.7%</td>
</tr>
<tr>
<td>Public high schools</td>
<td>15,200</td>
<td>208,605</td>
<td>1,270.5%</td>
</tr>
<tr>
<td>Both</td>
<td>130,948</td>
<td>391,891</td>
<td>122.9%</td>
</tr>
</tbody>
</table>

The total number of commercial students has more than doubled in twenty-two years, but the increase in the public school courses has been twenty-three times that of the private schools.

Most of the monograph is devoted to statistics and discussions of the organization and subjects of study in the high school courses, the general conclusions of the author being that there is much room for standardization, and that the courses should be broadened, partly to enable the high school graduate to pass the entrance examinations into business schools of collegiate grade, and partly to give him a wider view of the world of commerce in general.

The author lays some stress on the alleged demand of business men for better trained clerical help, a point which seems supported by the number of advertisements we see in the "help wanted" columns containing the words "high school graduate preferred." Speaking from the viewpoint of an observer, however, we are in doubt whether the alleged demand is for broader training. The average business man of our acquaintance complains bitterly of the lack of elementary training in the three R's, and we think what he asks is not broader but more intensive training.

W. H. L.


Beginning with chapter IV the author takes up in successive chapters the sources, character, methods of collecting, analysis, presentation and interpretation of business facts, with closing chapters on organized research work and the fundamentals of business analysis. The book should prove helpful to the business man who is trying to see his way to better business and larger markets. There are plenty of practical suggestions and illustrations of methods and graphics to appeal to the man of the "concrete mind."

The first three chapters seem rather superfluous. Business research in one form or another has been characteristic of the commercial world for the last twenty years, and it hardly seems worth while to spend so much
time and space advocating the obvious. Still much must be pardoned the enthusiast in his own line, particularly in view of the masterly skill with which Dr. Duncan has marshalled his facts and principles. The glowing enthusiasm of the last chapter—"The new business"—arouses one's sympathy, but, alas! we fear the war has not brought the millennium any nearer in business than in politics.

A SYSTEM OF BOOKKEEPING FOR GRAIN ELEVATORS, Bulletin No. 811, United States Department of Agriculture, by B. B. Mason, Frank Robotka and A. V. Swarthout.

Attention of public accountants, especially in the west, is called to Bulletin No. 811 issued by the department of agriculture. It describes the method of operating a uniform system of grain elevator accounting to answer the requirements of grain elevators at country points throughout the United States. A list of accounts with clear and complete directions how to use them is furnished, together with forms of tickets, cash-journal, records, etc. For those who desire to install the system the bureau of markets has provided printer's copy of the several forms for free distribution.

Louis G. Battelle announces that he has admitted to partnership Gordon S. Battelle, and that the firm name will be Battelle & Battelle, with offices in Dayton Savings & Trust building, Dayton, Ohio.

Alvin J. Rosencrans and Reuben Hirsch announce the formation of a partnership under the firm name of Rosencrans & Hirsch, with offices at 299 Broadway, New York, and 208 Broad street, Elizabeth, New Jersey.

Marwick, Mitchell & Co. (New York) announce that Norman G. Chambers has been admitted to the firm.

Irvin A. Winegrad announces the opening of an office at 314 Bulletin building, Philadelphia.

Schindler & Naren announce removal of their office to 1211 Chestnut street, Philadelphia.
American Institute of Accountants
List of Officers, Members of Council and Committees
1919-1920

OFFICERS

President .................................................. Waldron H. Rand, 101 Milk Street, Boston, Mass.
{ Arthur W. Teele, 120 Broadway, New York
Vice-presidents ...........................................
{ H. Ivor Thomas, 616 Higgins Bldg., Los Angeles, Cal.
Treasurer ................................................... J. E. Sterrett, 54 William Street, New York
{ A. P. Richardson, 1 Liberty Street, New York
Secretary ................................................... 

For five years:

Hamilton S. Corwin ..................................... New Jersey
Edward E. Gore ........................................... Illinois
Charles S. Ludlam ....................................... New York
Overton S. Meldrum ...................................... Kentucky
Charles Neville .......................................... Georgia
Adam A. Ross ............................................. Pennsylvania
C. M. Williams ........................................... Washington

For four years:

Harvey S. Chase ......................................... Massachusetts
J. D. M. Crockett ......................................... Missouri
W. Sanders Davies ...................................... New York
Page Lawrence .......................................... Colorado
Ernest Reckitt ........................................... Illinois
W. A. Smith ................................................ Tennessee
Edward L. Suffern ...................................... New Jersey

For three years:

J. S. M. Goodloe ......................................... New York
Elmer L. Hatter .......................................... Maryland
J. Edward Masters ...................................... Massachusetts
James S. Matteson ...................................... Minnesota
Robert H. Montgomery ................................ New York
Carl H. Nau ............................................... Ohio
W. Ernest Seetee ......................................... Illinois

For two years:

F. W. Lafrentz ........................................... New York
W. R. Mackenzie ........................................ Oregon
Walter Mucklow ......................................... Florida
John B. Niven .......................................... New Jersey
Herbert G. Stockwell ................................ Pennsylvania
F. F. White ............................................... New Jersey
Arthur Young ............................................. Illinois

For one year:*

Elijah W. Sells .......................................... New York
E. G. Shorrock .......................................... Washington
F. A. Tilton ............................................... Michigan

* A vacancy exists in the membership of council for this term.

BOARD OF EXAMINERS

For three years:

F. H. Hurdman .......................................... New York
J. C. Scobie ............................................. New York
Arthur W. Teele ........................................ New York

For two years:

W. P. Hilton ............................................. Virginia
John B. Niven, Chairman ................................ New Jersey
Ernest Reckitt .......................................... Illinois

For one year:

Charles S. Ludlam ..................................... New York
Waldron H. Rand ....................................... Massachusetts
H. Ivor Thomas ......................................... California

AUDITORS

For one year:

William R. Tolleth ..................................... Virginia

COMMITTEES

EXECUTIVE COMMITTEE

The President, Chairman ......................... Massachusetts
The Treasurer ........................................... New York
H. S. Corwin ............................................. New Jersey
E. W. Sells ................................................ New York

COMMITTEE ON PROFESSIONAL ETHICS

For one year:

Carl H. Nau, Chairman ......................... Ohio
J. D. M. Crockett ................................ Missouri
Charles H. Tuttle ................................ Massachusetts

For one year:

J. Porter Joplin ......................................... Illinois
T. Edward Ross .......................................... Pennsylvania
Committee on Arbitration
C. E. Wermuth, Chairman......Louisiana
Lewis G. Fisher................Rhode Island
E. Lovejoy....................New York

Committee on Budget and Finance
E. W. Sells, Chairman.........New York
Thomas L. Berry...............Maryland
Charles Hecht................New York

Committee on Constitution and By-Laws
W. R. Mackenzie, Chairman.....Oregon
W. A. Coy........................Ohio
W. S. Sutton..................Pennsylvania

Committee on Education
W. S. Whittlesey, Chairman.....New York
Allan Davies................New York
C. O. Wellington...........Massachusetts

Committee on Ethical Publicity
W. Sanders Davies, Chairman......New York
Carl H. Nau................Ohio
T. Edward Ross............Pennsylvania

Committee on Federal Legislation
Adam A. Ross, Chairman........Pennsylvania
Francis Oakey................New York
Archibald Bowman........New York

Committee on Meetings
W. A. Clader, Chairman.......Delaware
J. E. Bates...........District of Columbia
A. M. Pullen.............Virginia

Committee on Nominations
H. S. Corwin, Chairman.......New York
Joseph M. Pugh........Pennsylvania
C. M. Williams........Washington

Our C. P. A. Special Portfolio as per illustration, made of heavy sole leather, three 2½" pockets, extra wide straps, entirely around, attached to sliding handle, small pocket inside for pencils and memorandums, heavy brass lock attachment with padlock, size 17" x 11½", made in Russet, Brown and Black.

WHOLESALE PRICE
$15.00

A. H. MICHAELS
31 BEAVER STREET
NEW YORK

We make other types of Portfolios—Let us quote our price.

When writing to advertisers kindly mention The Journal of Accountancy
Modern Accounting Forms

National Modern Accounting Forms are a great assistance in keeping specialized business records. Many of these forms have been especially prepared for the National Line by expert accountants. The sheets are punched to fit regular sized Post Binders.

Among the very useful Modern Accounting Forms are: Inventory Sheets, Stock Records, Salesman’s Order Blanks, Purchase Orders, Cash Received, Check Register, Petty Cash Disbursements, Voucher Record, Weekly Pay Rolls, Cost or Estimate Sheet, Receiving Record, Notes, Drafts and Trade Acceptances—Payable—Receivable.

Modern Accounting Forms are time and labor savers, and supply most of the headings necessary for high-grade accounting. In buying Blank Books or Loose Leaf Devices always ask for “National” and identify them by the Eagle Trade Mark.

Send for free copy of “GOOD RULES FOR BOOKKEEPERS”.

22 Riverside, Holyoke, Mass.
American Institute of Accountants

LIBRARY CATALOGUE

A limited number (500) of copies (bound in cloth) of the new catalogue of the American Institute of Accountants is offered for sale.

The catalogue contains subject and author references to all books and pamphlets in the library and constitutes a most important guide to modern American accounting literature.

Pages 237. Price: $1.50 net, $1.65 delivered

Address all orders to

AMERICAN INSTITUTE OF ACCOUNTANTS

1 Liberty Street

New York
It's all right! Don't worry!

It's only a blot. The paper is Brown's Linen Ledger. A few scratches of the erasing knife and the blot will disappear in a fine powder. And the erasure can be written over with a fine point pen. The pen point won't stick or spatter, the ink won't run or blur. Brown's perfect writing quality extends clear through the sheet.

It pays to insist that your loose leaf ledgers and record books are made of Brown's Linen Ledger Paper. For, mark this well—a book made of cheap, inferior paper costs only 2 or 3% less than the same book made of Brown's Linen Ledger Paper.

Write for Brown's sample book and test the papers


When writing to advertisers kindly mention The Journal of Accountancy
Accounting Mathematics Simplified

This subject is treated in a very comprehensive manner in our new book

Mathematics for the Accountant
By Eugene R. Vinal, A. M.
Professor of Accounting and Actuarial Science in the School of Commerce and Finance, Northeastern College, Boston

The fourteen chapters discuss such subjects as Accounts Current, Foreign Exchange, Powers and Roots, Logarithms, Annuities, Sinking Funds, Amortization, etc.

At the end of each chapter are problems based on the work which has preceded. This valuable book will be sent for 5 days' examination. You will either remit $2.50 or return the book during this period.

The Biddle Publishing Co.,
Business Books
19 West 44th St. DEPT. 14-J New York

BRIEF CASES

FOR ACCOUNTANTS AND BUSINESS MEN

The Brief Case illustrated, made of the best grade Russet Sole Leather, Sixe 17 x 10½, has three pockets, each with an expansion of two inches; also one small pocket size 9 x 5 with flap fastened with snapbutton. Straps extend entirely around the case; handle is adjustable on straps, always keeps in the center; has first class padlock with two keys. Price complete, $19.00.

Every L. L. B. Brief Case has all the good points of the best Brief Cases made, plus the particular attention that has been paid to style. Exceptionally strong, durable and light.

60 other styles from $6 to $19. Send for Catalog No. 27

Express prepaid anywhere in U. S. Money back if not satisfied.

L. L. B. CASE MFG. CO.
5 Cedar Street, New York

WE WILL BUY
BACK NUMBERS OF THE
JOURNAL OF ACCOUNTANCY
PARTICULARLY 1919 ISSUES

Dixie Book Shop
41 Liberty Street New York City

ANALYSIS PAPER

Buff and White—Four grades—4 to 28 columns wide, in variety of styles, always carried in stock, padded or loose.

Send for price list and samples.

L. H. Biglow & Company, Inc.
24 Beaver Street New York
Classified Advertisements
Copy for Want Ads. must be in our hands by the 22d of the month preceding the date of issue. Terms $3.00 an inch payable in advance.

SITUATIONS WANTED

**Auditor - Accountant**
At present with well known firm of Certified Public Accountants. Thorough knowledge of cost accounting and well experienced at systematizing. Age 29. Desires connection with reputable industrial corporation. Minimum salary $4,000.

Address Box 990 c/o Journal of Accountancy

**Accountant**
Capable taking full charge of factory, cost and general accounting work; 13 years' experience, excellent references. Salary $70.00.

Address Box 992 c/o Journal of Accountancy

**Position**
Needed, young man of 28, 10 years' general office experience. Desires connection with Public Utility on traveling staff. Best of references.

Address Box 981 c/o Journal of Accountancy

**New England**
Opportunity desired by accountant and office manager of nine years' experience in accounting, costs, production analysis and control, and system installation work. Practical man with factory, office and executive experience. College graduate. Reasonable salary.

Address Box 982 c/o Journal of Accountancy

**Wanted**
Partnership connections with small but high-class accounting firm in Boston, by senior accountant, soon to be released from government emergency work. Give full particulars.

Address Box 997 c/o Journal of Accountancy

**Accountant**
Experienced, N. Y. graduate, capable stenographer, report typist, desires work few days a week, or evenings.

Address Box 998 c/o Journal of Accountancy

**Certified Public Accountant**

**Senior Accountant**

Address Box 991 c/o Journal of Accountancy

**Accountant**
With fair general practice would like to connect with C. P. A. (N. Y.) on partnership or other basis.

Address Box 993 c/o Journal of Accountancy

SITUATIONS WANTED

**Chartered Accountant** (England and Wales), age 31, available for either professional or commercial position; 14 years' professional experience, several years as manager and supervisor. Special study of the Income Tax Law. Speak French and little Spanish. First-class references given. Minimum salary required, $6,000 per annum.

Address Box 1002 c/o Journal of Accountancy

**Certified Public Accountant**
In two states conducting the examination prescribed by the Board of Examiners of the American Institute of Accountants, at present privately engaged as Auditor of five large textile corporations, formerly senior accountant on staff of large New York accounting firm, will be pleased to consider offer of affiliation in junior partnership or branch managership capacity, from public accountant in vicinity of New England or Middle Atlantic States.

Address Box 984 c/o Journal of Accountancy

**Constructive Accountant**
With several years' experience in installing cost systems in factories, is desirous of making connections with an accounting concern doing a similar line of work.

Address Box 994 c/o Journal of Accountancy

**Accountant**
With many years' experience in installing accounting systems in mills, desires to take a permanent position as accountant where a modern accounting system exists or is being installed.

Address Box 995 c/o Journal of Accountancy

**Comptroller or General Auditor**
With proven constructive C. P. A., N. Y., and executive capacity desires permanent connection with large industrial corporation. Many years with well-known Auditing Firm of New York. Good experience in cost accounting and installing systems. Lately general auditor with one of the largest American mining and smelting corporations in Mexico. Age 40; excellent references. Salary $4,000. Address: Apartado 5172, Mexico City.

**Cost Accountant**
And auditor, age 33, with 3 years' public accounting experience, wishes responsible position with a progressive firm in or near Philadelphia, Pa. Salary $3,000.

Address Box 996 c/o Journal of Accountancy

When writing to advertisers kindly mention THE JOURNAL OF ACCOUNTANCY
Classified Advertisements

SITUATIONS WANTED

Position Wanted by consulting accountant, auditor and business engineer as office manager, expert accountant, auditor or cost and general systematizer. Am an organizer, efficiency expert, high-grade man and advisory engineer; 20 years accounting, auditing and financial management; capable handling large proposition; educated at two universities, one polytechnic and two technical institutes. Salary $500 per month. Address Box 999 c/o Journal of Accountancy

Auditor-Accountant-Comptroller
American, age 28, married, with wide experience in private and public accounting and auditing, desires position with progressive manufacturer or Certified Public Accountant. Capable executive or senior accountant. New England or Pacific Coast preferred. Minimum salary $3,000. Available April 15th. Address Box 980 c/o Journal of Accountancy

Accountant and Auditor Wanted
Experienced junior accountant wanted, one familiar with public accounting and cost plus contracts. Some traveling required. State previous business experience, age, salary required; married or single. Address Box 1000 c/o Journal of Accountancy

Wanted
Thoroughly trained senior accountant with many years of varied experience. Must be capable of conducting audits and systematizing, possess full knowledge relative Federal Tax laws. Position open with Certified Public Accountant in New Orleans. Might consider taking good man into partnership. Address Box 987 c/o Journal of Accountancy

Help Wanted
Thoroughly trained Senior Accountant, preferably C. P. A., to take full charge of audits and supervise work of other men; willing to locate in New Jersey. Permanent position with likelihood of partnership. Reply in confidence, stating age, education, salary expected, references for past five years, etc. Address Box 986 c/o Journal of Accountancy

Accountants
We have openings on our staff for experienced accountants who are familiar with audit procedure, those who have knowledge of income tax laws preferred. Positions permanent; good salary guaranteed, over-time basis. All applications confidential. A. Lee Rawlings & Company, Certified Public Accountants, Law Building, Norfolk, Va.

Wanted
Supervising accountant and report editor for position on staff of Certified Public Accountant in Middle West. State full particulars in first letter as to age, education, experience, nationality, references and salary desired. Address Box 985 c/o Journal of Accountancy

Wanted C. P. A.
To enter accounting firm whose practice is growing so rapidly that an increase in the membership of the firm is desired. Exceptional opportunity offered to right party to acquire interest. State age and nationality. Address Box 988 c/o Journal of Accountancy

HELP WANTED

Accountant
Expert, to supervise bookkeeping of several companies. State reference, experience, and salary. Address Box 989 c/o Journal of Accountancy

Wanted
Factory Cost Accountant by large manufacturing concern. Must be capable of installing and maintaining complete, up-to-date cost system. Address Box 1001 c/o Journal of Accountancy

Member
of Institute, holding C. P. A. Degree, in practice in New York City for some years past, invites correspondence with a view to forming partnership. Christian. Address Box 986 c/o Journal of Accountancy

Office Space
Accountant specializing on Federal Taxes will sublet a small office, furnished or unfurnished, also desk room; vicinity Fifth Avenue, 42d street. Opportunity to make good connections. Address Associate, Suite 30, 1 E. 42d Street, N. Y. C.

PORTFOLIOS OF DISTINCTION

CENTURY Portfolios are equipment of distinction—known and appreciated for their excellence of material, superb workmanship and efficient design. In the CENTURY "DE LUXE" PORTFOLIO (Illustrated) you will find embodied all the essentials of a practical Portfolio. Made of heavy English Bridle leather. Black, Russet, or Cordovan. Solid shawl straps and adjustable handle. Three or four wide pockets, and small pocket, 5" x 9", with flap closed by snap buttons, for memo books, pencil, etc. Hand-made gold finished staple and hooks for padlock. Strong suspending lock with key.

<table>
<thead>
<tr>
<th>Size</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Pkts.</td>
<td>9&quot; x 12&quot;</td>
<td>$21.50</td>
</tr>
<tr>
<td>4-Pkts.</td>
<td>9&quot; x 12&quot;</td>
<td>$22.25</td>
</tr>
</tbody>
</table>

Sent prepaid anywhere in the U.S. upon receipt of price. Money immediately refunded if not satisfactory in every respect.

CENTURY Portfolios, Brief Cases and Secretary Cases—some priced as low as $5—described in our Catalog "JM." Sent on request.

CENTURY LEATHER CRAFTS COMPANY
350 Broadway
New York City

When writing to advertisers kindly mention THE JOURNAL OF ACCOUNTANCY
Duties of the Junior Accountant

By W. B. REYNOLDS and F. W. THORNTON

Published under the Endowment Fund of the American Institute of Accountants

THIRD EDITION

The third edition of Duties of the Junior Accountant is now ready for delivery.

This standard guide for the junior accountant has established itself in most of the prominent accounting offices.

Every junior should have it with him to show him what to do and how to do it.

The volume consists of 107 pages and is of convenient size

Gentlemen:

Enclosed find $..................... for which send................................................. copies of "Duties of the Junior Accountant," at $1.00 a copy, to the following address:

__________________________________________________________________________

THE AMERICAN INSTITUTE OF ACCOUNTANTS,
1 Liberty Street, New York.

COST ACCOUNTING

For MEN and WOMEN

Our course in Cost Accounting is designed to prepare men and women for work as cost accountants, so much in demand just now by the Government.

Other courses include Accountancy, Auditing, Business Law, and Special Post-Graduate Problems preparing for C. P. A. Examination.

Send for catalog. Personal service of R. J. Bennett, C. A., C. P. A.

Bennett Accountancy Institute
261 Farragut Street, Philadelphia, Pa.

Entries made in 1803 with a Steel Pen

No. 322—A fine pointed, smooth writing, especially firm pen

Esterbrook Inflexible

Accountants find this pen gives them fine service—carries plenty of ink safely—ink flows evenly and smoothly to the paper—no need to use a blotter. The first steel pens were used in 1803, and entries made then are perfectly legible today.

R. Esterbrook & Co. have been making pens of uniform standard excellence for 61 years. Send or telephone to your nearest dealer, asking for samples. 15c a dozen, assorted or of your favorite pen.

THE ESTERBROOK PENNING CO.
24-70 Cooper Street, Camden, N. J.

When writing to advertisers kindly mention THE JOURNAL OF ACCOUNTANCY

Pace Institute educates men and women everywhere in the science of Accountancy and Business Administration—develops in them a market value as professional accountants, auditors, cost analysts, comptrollers, and financial executives—equips them for heavy responsibilities and commensurate rewards.

The Pace Courses—standardized, accredited, developmental courses—are continuously available in day and evening classes at Pace Institute, Washington, Boston, and New York. Late spring classes are now being organized in these schools.

The Courses are also given on a country-wide scale by Extension through the mails. Extension students study the same subjects as do Resident School students—theory of accounts, practical accounting, bookkeeping (if necessary or desired), law, applied economics, principles of organization, management and finance. The Extension Course may be taken for a month’s trial instruction for $7, without any obligation whatsoever to continue.

Send for descriptive Bulletin (specifying either Extension or Resident) and for a complimentary copy of “Your Post-War Opportunity,” a 20-page booklet which contains much helpful information about economic opportunities for Accountancy-educated men and women.

Pace & Pace

Washington
1004 F Street, N. W.

New York
Hudson Terminal
30 Church Street

Boston
Tremont Temple