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Importance of Accounting Training*

By John A. Luman, A.M.

From a biblical view, everyone must finally render an account of the deeds done in the body; from a business view, everyone should be able to render an account of his financial standing and obligations. In either case, the rendering of a good account is of paramount importance. It establishes, in the first instance, man's right standing among the angels; in the second, his right standing among men. Very often, indeed, the latter goes far to insure the former.

Assuming that you possess a fair knowledge of the elementary principles and nomenclature of accounts, the language peculiar to the science, it shall be more particularly my aim to show the development, the scope, and the importance of such training. Many persons have very narrow, distorted views of this interesting, diversified, useful line of study. Every excavation of ancient buried cities adds some new facts to the early history of this study; every modern business evolution demands some new adaptation of its principles. Of the ancient civilizations, the Phoenicians and Venetians, which rose to supremacy through commerce and industry, we read of their accountants as well as their merchants and manufacturers. History also records the intimate relations of carefully kept records of business, however crude, with the growth of commerce and industry; it likewise shows the close association of barbaric methods with inferior civilizations, and carelessly conducted systems with a people's decay. Interest in accounts and commercial necessity have produced many needed and acceptable changes; yet even to-day, many are the losses and failures due on the one hand to imperfect and

* An address delivered at Dickinson College, February 10, 1911.
antiquated methods; on the other hand, to inability to read and understand the history of the books. Woven in facts and figures is a story often plainly told, but too frequently uncomprehended. Business enterprises, commerce and governments have all been compelled to charge large sums to the unmethodical inefficiency account.

Schools have been instituted to teach safe, sane, economic systems, to prepare many for this inviting and necessary work, and, at the same time, to protect others in the administration of affairs. A clear conception of the fundamental principles of accounts is of prime importance in business to both employer and employee. Just as the barometer indicates definite conditions to the weather prognosticator, so the records, the business barometer, should show clearly whether conditions are safe, disturbed, or dangerous; when to hoist the sails and when to reef them. Ignorance or disregard of this essential knowledge by directors or investors, invites financial trouble or even disaster. By the blacksmith, as well as by the great railroad magnate, records must be kept, and are kept; but only when the data are collected, arranged and classified scientifically, do they truly show what every business man, for his future policy, should know—present conditions and tendencies.

But like chemistry and other practical studies, the science must be combined with art to get an intelligent grasp and correct understanding; and unfortunately, this is discovered by many business men very late in the day—often when they have little time and less inclination to do the work essential to obtain the coveted knowledge; consequently, they go along groping in the dark, always at the mercy of some one else. This entire dependence on another, not only to write, but also to interpret business history, has resulted in many of the ills with which businesses are afflicted.

It is in the art, the application of the laws, that any useful science becomes valuable, and often only through the art, are the laws and principles of a practical science properly grasped and correctly understood. Therefore, to lay down the simple, fundamental law of accounts, that for every debit there must be an equivalent credit, in no great measure aids the untrained to understand the various steps that appear in the final results or summation of a business period.
Importance of Accounting Training

As in hydraulics and other branches of physics the demonstration sets at rest any doubt about the utility and force, so transactions, recapitulated and segregated facts of accounts and of books, are mystifying to most individuals until clarified by the original and logical steps and processes. To the inexperienced, the analytical process would be very much like entering a cave with a lighted candle that suddenly becomes extinguished. The better way to arrive at safe conclusions and at a true statement of affairs is to study the method and principles involved in combining and recording the transactions and parts, however apparently distantly related.

The value of a practical art depends on the sphere of its usefulness, and one art differs from another in simplicity or complexity of system and execution. Utility is too often confounded, by those unfamiliar with the problems and difficulties of a practitioner, with intuition. If history be true, intuition has not served man to the same extent as it has served woman; for it is claimed that by this faculty she circumvents the long, slow processes of man’s reasoning. However, imitation, not intuition, is an important feature in the study of accounts; but this does not detract from its educational value, for what great work has ever been achieved in the world of science or letters in any other way? Do not students of sculpture and painting attempt to reproduce the works of the great artists, Rafael and Michael Angelo? Do not students of literature imitate sedulously the style of the great masters, Shakespeare and Dante? Franklin, as related in his autobiography, acquired a good English style by reproducing, imitating, converting into verse and then into prose again, the tales of the Spectator. It is not imitation, but servile copying that is fatal to progress. This adversity is to show that the difference between even the finer arts and the useful arts is one of purpose and spirit, rather than mode of acquisition.

An erroneous opinion as to special preparation in this study has existed in business as well as in professional circles; but many who formerly considered it an intuitive art, so simple and easy that any one of ordinary intelligence could grasp and practise it, have unfortunately been the victims of its malpractice to the extent of irretrievable loss in money, reputation, and honor. Under such conditions, the accounts were indifferently kept and little or no reliable information could be obtained from the rec-
ords; now the accounting work of an up-to-date business house is so classified, coordinated and systematized that it serves as a compass to firms and corporations in their many ventures. Present trade conditions have forced new and highly-perfected cost-systems to determine accurately the manufacturer's cost as a basis in sharp competition for a right selling price; and now in the best conducted factories and shops, information is readily obtained as to the cost of the minutest article at any stage of its manufacture.

So important, so attractive indeed, has this field of endeavor become that it offers play, variety and interest to the best scholars; and so vital is it to business safety, security and life that rare inducements are offered to the well-trained. No better example can, or need be cited, than the recognized value and importance of public accountants to business interests. As business evolution tended to combination and economy in effort and operation and to scientific efficiency, it demanded a new order of ability for its proper conduct and protection. Rapidly sentiment crystallized in favor of the distinct and recognized profession of certified public accountants; and—be it said to their credit—they recognized the value of technical business knowledge as a primary requisite in their work. They realize that the system of accounts is to be adjusted to the peculiar needs of the business, and not the business to some fancy notion or method of accounting; consequently the more extended their knowledge of different businesses, the better their equipment. This is evidenced in the integrity and ability of the men in the profession and augurs well for the future. Relatively, the public accountant is growing more and more important, and the lawyer less and less. Naturally this should be true; for if entanglements and troubles are prevented, the extrication from difficulties is obviated. In cases involving accounts, no good lawyer would risk his reputation in court without a recognized accountant to explain the records, unravel the difficulties and pass judgment on errors due to ignorance or stupidity, cunning or deception, or wilful perversion of the facts. In any impending financial danger or crisis, the accountant is the doctor, and upon his findings and reports businesses are adjusted, protected, rehabilitated and converted. The future work of accounting will be more and more in prevention than in cure; in originating and creating safe systems and secure checks. The ounce
Importance of Accounting Training

of prevention has no better application, as it saves often not only one but many allied interests.

It appears as if every law awaits a time, or rather a necessity, to bring it into practical use. This was true of steam and electricity, twin powers that have revolutionized society and made possible the accomplishment of business undertakings and ventures beyond the fondest dreams of other ages. But they have multiplied pursuits, brought diverse peoples and interest into close association, consequently making it more difficult to show by records the separate and interdependent relations. So from the time one article was exchanged for another until money, a common medium, was used, and until the advent of corporations, due to the complex relations of business life, accounting has made new applications of a law as old as those of the Medes and the Persians. From the time of the primitive record when a stick split into two parts, one held by the debtor, the other by the creditor, notched for receipts or payments, the parts being sealed when the obligation was canceled, until the present day, when accounting has taken its place as one of the very important of exact sciences, dignified as a study in the best institutions, there have been many interesting stages in its development, with which every student of the subject should be acquainted. Suffice it to say that the history of its transitions from one period to another will give you a better appreciation, if not understanding, of the study, and its intimate relation to the progress and welfare of the people.

In conformity with the old idea of apprenticeship, prevalent in other times, generally many learned the practise of this science, as lawyers formerly studied law, in an office, and were limited by the prejudices and peculiarities in vogue there. To overcome prejudice is one of education's hardest battles; but gradually, as in other sciences, there accumulated a body of knowledge, including many allied, correlated and kindred subjects, that challenge the thought of the best minds of to-day. From this material, courses of study have been formulated that, if seriously pursued, will not be less easy, less disciplinary, but simply differently directed. Classical courses should facilitate rather than hinder progress in technical courses; in fact, the mastery of the nice distinction shown in the inflections of Latin and Greek develops accuracy and precision—traits that are indispensable in the ac-
countant; and the changed conditions of business make culture, as well as integrity, an essential part of commercial education.

As the laboratory is everything to the chemist, so accounting must be studied from the transactions and materials which produce the results. Often there will be an apparently endless variety of unformulated, undigested transactions to assort, classify and systematize. The equation of which the debit and the credit are composed, must be as clearly fixed in the mind as an equation in algebra or a theorem of geometry; and as like terms may be eliminated in algebra, so a credit cancels a debit. The mathematical mind at once grasps the effect of posting to the wrong side of an account.

It is patent to accountants, if not to students of accountancy, that the better the general preparation, especially in English and mathematics, the better the equipment for this kind of training. Deficiency in reasoning, whatever the cause, interferes with the inventive work. However, what education has wrought in other professions, it is gradually but surely achieving in this. The broadening idea has superseded the narrowing idea. True, it is possible to get an elementary knowledge of accounts with but a meager general knowledge; but the little knowledge thus gained is a dangerous thing, lacking breadth and solidity, and offering no opportunity for expansion. It is certainly not the part of wisdom to narrow the door of opportunity by narrowing the preparation. Obviously, if the mind grasps clearly and readily the bearings and relations of the transactions and facts, the mechanical work of recording and interpreting can be more intelligently performed.

The mechanical operations and devices are in no sense to be lightly esteemed, for they are the means of connecting the premises with the conclusion. Naturally, systems must be so formulated as to show correctly and clearly profit—the purpose of business institutions—or loss when these institutions for any reason fail in their purpose. The whole accounting mechanism is coordinated to and unified with this central idea. It is not simply the ignoble, selfish spirit often portrayed, for mere money-getting does not so often dominate these men as the conquering of new fields, new means and new methods of operation, from which society generally derives the benefit. This is simply the pulse that indicates the business conditions.

Doubtless all persons pursuing these studies know full well
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how records find their final lodgment in the ledger, the book of accounts, how the gains or losses are segregated and how the other books are related to the ledger. Admittedly, the safe way strictly conforms with the principle of debit and credit. No one could proceed intelligently without a knowledge of the original books, the steps of opening and closing the ledger, and of trial balance, balance sheet, statement of earnings, etc.; without the ability to classify accounts in a way to determine gain or loss or any article or venture; without a knowledge of the difference between partnerships and corporations, of books and accounts peculiar to each, of methods of conversion and laws governing them; without familiarity with voucher system and columnar books, and the variety of transactions, payments and credits. All this knowledge is absolutely essential and gives, if intelligently worked out, an insight and grasp that can be gotten in no other way. It also furnishes a basis for logical deductions and for the invention of new systems. Neglect of this work opens the way for trouble, often insurmountable, and not infrequently hours of tedious labor for others. A little practise of an art, as well as a little knowledge, is surely a dangerous thing.

What appears of minor importance proves often to be of prime interest, in this as in other sciences. Slight errors do not simply affect final results; but even so small an error as that of a cent destroys the poise, and must be found, at whatever cost of time or labor, in order to establish the correctness of the work and of the theory on which the science is built. It must be borne in mind, however, that clerical errors that do not affect the equality do not affect the theory.

At times there is a great temptation to change figures or force balances, but whoever yields does so in business not only at the sacrifice of reputation but at the jeopardy of his freedom. The juggler of figures under any circumstance, be he rogue or sluggard, closes upon himself the door of incarceration. Errors will occur, but they should appear as honest mistakes and should be corrected in a way to show both the error and the correction. Mistakes, honestly made, discredit simply ability; obliterations and erasures, character. In spite of all good intentions, bad practises in school are continued in business. Young men who think otherwise disregard the binding force of habit and labor under a delusion and a fallacy freighted with the worst conse-
quences. Remember that the books of the business at all times are to show a true history of the business, and refuse, under any condition, to substitute expediency for truth.

As the mechanical work becomes somewhat of a second nature, the work of judgment and knowledge of business begin; and here comes into play the broad, sound knowledge of principles, of the operation of the laws of trade, which the school develops and which business affords the opportunity to pursue and to perfect. Only the type of mind and ability herein described will be equal to devising systems best adapted to each of many diversified interests, systems of economy at no sacrifice of clearness, systems based on intimate knowledge of values, life of machinery, systems and schedules that will best facilitate the successful prosecution of business. Scientific knowledge gives a broader view, a clearer understanding, and lays a surer foundation for future development. Reason develops the why, practise develops the how, and the indispensable quality of judgment develops the what. Many succeed fairly well in the first two, but fail utterly in the last for want of a comprehensive knowledge of business organization and operation, of laws of trade and finance. It is evident that the day of the neophyte has passed, that people do not grow into business but prepare for it.

The undeveloped and unlimited natural resources of our country have superinduced a tendency to money-making with all its attendant evils and excesses. A wave of indignant protest has gone out, not so much against the rapid accumulations by the few as against the many abuses of wealth. This spirit has developed many of the best, as well as the worst traits of character; and to destroy it would be as unwise and foolish as to kill the goose that lays the golden egg. The demand for publicity carries with it an imperative demand for intelligent understanding of reports, statements, records. Any but honest publicity will recoil in due time on those who artfully or wilfully misrepresent the facts, and this can be enforced only by an intelligent grasp of modern business methods and problems. Ignorant criticism often prejudices people against conditions but never improves them. Therefore a type of mind must be developed that understands, in all their operations, modern business institutions—that finds remedies as well as faults. It is the function of education to separate the good from the evil, to correct the bad influences by the substitu-
Importance of Accounting Training

tion of methods and practises that will stand the limelight of publicity.

The need to-day is for trained men—for better-trained men in accounting and business in the broader sense—to meet the new conditions. In addition to sterling qualities of character, which every man must possess who dares hope for success in business, he must be intelligent and efficient. It is true he must first of all be honest; but honesty will not serve for intelligence, and it is no excuse for ignorance. An uneducated honest man, though less culpable, may be as unsafe as a rogue. Business is the governing spirit of the age; and to advance, guide, and direct it, there must be dedicated to it in our institutions, clean men and men of learning.
The Importance of the Municipal Budget as a Means for the Control of Expenditures

BY ANSON HERRICK, C.P.A.

The Budget, as employed by municipalities and other political divisions, has two prime functions. The first is to determine the financial requirements of an ensuing period so that arrangements may be made for the development of the necessary revenue. The second is to prevent the expenditure of the revenue for any purposes except those for which it has been contributed by the public. Both of these functions are of extreme importance, not only to the legislative authority, vested with the power of developing the revenue through taxes and rates, and charged with its judicious expenditure, but to the public that contributes the revenue and benefits from its proper employment.

In the preparation of the Budget, the legislative body calls upon the various governmental departments for estimates of their financial requirements for the ensuing year or other period. After tabulating the estimates the total stated requirement is compared with the amount which it is expedient to provide, or which it is possible to raise provided that a taxation limit is specified by law. In the event that the total of the estimates exceeds the amount which it is judicious or possible to raise, as is only too frequently the case, it then becomes necessary to reduce the estimates by this excess. In fact, the usual necessity for this reduction is frequently anticipated by department executives and in preparing their estimates they accordingly set forth a requirement greater than is actually expected.

This process of revising the Budget estimates is of vital importance to the taxpayer. Once the Budget receives the approval of the legislative body it becomes a law. Sufficient taxes must be imposed to provide the necessary revenue. The allowances therein provided become available for the use of the various departments along the lines specified, and, generally speaking, there is no way by which a department may be prevented from employing its full allowance. Consequently the preparation of the Budget may be considered as the final determination of the financial policy of the city for the ensuing year, and the period prior to
**The Control of Expenditures**

its final adoption by the legislative body presents the only opportunity for public intervention of any value. The questions now arise: by what means can the public intervene, and how is the public to place itself in a position fully to understand the subject so that intervention may be logically directed towards the welfare of the city?

As to the first question, it is true that individual action would be practically valueless, but it should be remembered that this very fact has caused widespread formation of commercial and improvement clubs, merchants' associations, etc. It is through such bodies that the public may have a part in the determination of the municipal policy for the future and even though their part is unofficial, it is important. The legislative body is bound to respect their recommendations as to the relative urgency of improvements and as to economies which may be exercised, provided that such recommendations are made after a logical consideration of the entire municipal requirements and do not evidence the desire of one section for benefits which could only be obtained at the expense of the city as a whole.

The answer to the second question (how is the public to become thoroughly conversant with the subject?) is almost obvious. It is by a study of the tentative Budget, of a comparison with past expenditures, of the urgency of municipal improvements contemplated and of improvements and other requirements which appear to have been omitted. Though the theoretical manner of forming an opinion as to the fairness of the Budget is apparent, the practical means at hand for so doing are usually limited.

In order that the legislative body, as well as the public, may intelligently pass upon a tentative Budget, one thing is of prime importance. It must be well arranged and sufficiently detailed. This is necessary, not only to enable just consideration of merit but so that the authorizations finally determined may not be perverted. An ideal arrangement of Budget estimates contemplates a classification with regard to the various governmental functions, which are:

1st: General Government

\[
\begin{align*}
\{ & \text{including the legislative and chief executive's offices, the courts, etc.} \\
& \{ \text{including the Police and Fire Department.} \\
\end{align*}
\]

2d: Protection of Life and Property
The Journal of Accountancy

3d: Health Conservation and Sanitation
    Including the inspection function of Board of Health and Sewers.

4th: Highways
    Including the care and operation of Streets.

5th: Charities and Corrections
    Including Hospitals and Jails.

6th: Education
    Including Schools and Libraries.

7th: Recreation
    Including Parks and Squares.

8th: Miscellaneous

9th: Interest and Sinking Fund

10th: Construction, Improvements and Betterments,
    subdivided as to
    (a) General Government.
    (b) Protection of Life and Property.
    (c) Highways, etc., to (h) Miscellaneous.

Each of the general classifications should be subdivided as to the various offices and detailed activities, which go to make up the entire city, while salaries, wages, materials and expenses should be a cross classification. It should be understood that the general classifications, No. 1 to No. 8 above, should include only the requirements for actual operation and current maintenance, the requirements for improvements being aggregated under No. 10, the details of which should show just what improvements, new equipment, etc., are contemplated and how urgent is the need. This division between operation and improvement (revenue and capital) is important. Operating expenditures simply provide the required service to the public and maintain the city in its present condition. Improvement expenditures result in the acquirement of something that will be of a permanent or longstanding value. The operating expenditures should gradually increase with the growth of the city; the improvement
The Control of Expenditures

expenditures should fluctuate in accord with the particular need of the moment. Operating requirements must always be met by current revenues, while it is frequently advisable to incur bonded indebtedness to provide for improvements, thus distributing the expense to the public over ensuing years, during which the service from the improvements is being given to the public.

Assuming that the Budget estimates are so prepared, it is contended that intelligent consideration may be given by the average interested business man. He is able to see just what is contemplated and what is to be the cost. If the estimate for highways is much larger than for prior years, the estimate will show whether the increase is for lighting or for pavement repairs. If the former, it should be shown that the number of lights or the rate has increased. If the latter, the particular reason for the increase should be apparent. In either case he is able to form an opinion. He can ascertain what portion of the revenue to be contributed is to be used for current needs and what portion for improvements, the benefits from which are to accrue to future years. The means have been provided so that "He who runs may read," and read with intelligence. With such a Budget the organizations of taxpayers may object to contemplated expenditures of certain kinds; may point out where important requirements have been omitted, and each objection, each suggestion, may be supported by arguments founded upon a full knowledge of the matters in question. In fact, the entire matter may be considered in the same manner as the merchant considers the financial policy of his business.

From the standpoint of the legislative body the value of such a Budget arrangement should be even greater than to the public, for to it the matter is an official trust. As it is usually necessary to reduce estimates, the means are provided whereby every contemplated expenditure, not absolutely essential to the continuation of government, is boldly apparent. Estimates which have been padded in anticipation of reduction may be segregated from those which have been honestly prepared. Resultingly, reductions can be made without the danger of retarding the efficiency of any function, while at the same time excess allowances are prevented from passing unnoticed. Further, such a Budget arrangement enables the legislative body to prevent any diverting of funds from the channels of judicious expenditure with much
more exactitude than under any more omnibus form, while at the same time it should not in any way embarrass the executives in the performance of their duties.

If it be admitted that a Budget arrangement such as suggested is advantageous, the question immediately arises, How is the data to be obtained for the classification of the estimates? The answer is: only by arranging the accounts of the city so that the same classification may prevail in the recording of transactions. This is true, inasmuch as it is necessary, in the preparation of any estimate of future financial needs, to refer to what has been required in the past and if the municipal accounts and the municipal budget both be segregated along the suggested lines it is apparent that the possibility for intelligent consideration of estimates by either taxpayer or legislative officer is greatly increased.

The Budget of the City of San Francisco and the Budget of the City of New York are excellent examples of what a budget should not be and should be. In the Budget of San Francisco practically no regard is given to a logical classification as between governmental functions or to the separation of requirements for operation as against improvements. Estimates are presented and accepted which contemplate expenditures for both ordinary operations and for the acquirement of additional equipment. It is only with regard to new buildings and other improvements of great magnitude that specific provisions are made. The result is that the Board of Supervisors cannot reduce or allow the estimates with a proper degree of equity to all, while the taxpayer is prevented from obtaining any well founded opinion. The Budget of New York is prepared in such a way as to give the maximum amount of information directed towards the formation of logical opinion. The estimates are shown in comparison with the expenditures for prior years. The amount per capita of each classification is shown and every percentage or other data which can be of value is included. In New York the Budget is so arranged as to become a predominating factor in the control of municipal expenditures. In San Francisco many improvements in arrangement and method are required before the possibilities of control, which exist in a well arranged budget, may be realized. Which is the better way, that of San Francisco or that of New York?
Sinking Fund Reserves

BY F. LINCOLN HUTCHINS.

Taking the example given by Mr. H. F. Searle in the Journal of Accountancy for February, 1911, we have a plant built on the proceeds of the bonds, with capital stock issue for working capital; as a part of the bond consideration the mortgage requires a certain sum to be set aside yearly out of earnings which will provide the amount necessary to liquidate the bonds at maturity.

Under these circumstances the amount accrued from the earnings as annual payments to the sinking fund is not an asset of the company in the sense that it has any control over or right in it; that right belongs to the bondholders as per contract. Why, then, should it be placed upon the asset side of the balance sheet? Is it not more in the nature of an offset against the bonds and does a true statement require that it be placed upon the liability side as a deduction from the outstanding liability?

Take a case where the mortgage requires the taking up and cancelling a certain amount of the bonds each year out of earnings; here we have a clear case of an ever-reducing amount of outstanding bonded indebtedness; and in principle how is the establishment of a sinking fund for bond retirement any different?

Is not the setting up of a reserve to cover sinking fund entirely wrong in principle, and is not this the cause of all the discussion and of makeshifts to get rid of it after the sinking fund disappears?

Would not the true statement require a balance sheet at the end of twenty years before the bonds have been paid reading as follows:

**Debit Items**
- Working capital ........................................... $300,000
- Plant ......................................................... 200,000

**Credit Items**
- Capital stock ................................................ $300,000
- Bonds .......................................................... $200,000
- Less sinking fund accruals .......................... 200,000
- Surplus ..................................................... 200,000
When bonds have been paid off by sinking fund then both items disappear from the statement.

During the interim of twenty years it is evident that as earnings are applied to a virtual cancellation of the bonds the concern is gradually accumulating a surplus, and this will be regularly made apparent by the statement as formed above.

It may be objected that this surplus is not a free surplus in that it cannot be dissipated without encroaching upon the working capital, but as this would be self-evident from the statement itself it could deceive no one, while the adding of sinking funds to actual assets may lead to erroneous conclusions.

A reserve should not be set up except where it is a part of the free surplus, and the payment out of earnings under the conditions named is not a reserve out of free surplus; the concern really makes a payment on its bond account even though that payment is to a sinking fund rather than directly to the bonds themselves; it is not a reserve from free surplus. Neither is a reserve created when actual assets, be they cash or otherwise, are taken from the actual balance sheet assets and applied to any special purpose; in case these are taken from earnings they are a payment for a certain purpose and hence removed from the balance sheet proper, although in certain cases subject to a memorandum addenda such as the statement that certain funds have been applied to a certain purpose, which purpose may, when completed, appear as a new asset. The income account must show such application of funds, and having been taken from surplus should not be reincorporated into that surplus through the fiction of a reserve.

The setting up of a reserve in order to balance an erroneous entry among the assets has no justification in logic, however well it may be fortified by precedent and rutty methods of the past.

In this connection, would it not be well to work for a balance sheet which would more effectually set forth the actual standing of corporations than does the one at present in use?

Should not the form be something after the following:
Sinking Fund Reserves

Debit Items

Working capital—i.e. ..........Cash,
Free securities,
Loans and bills receivable,
Accounts receivable,
Materials and supplies,
Etc.

Deferred capital—i.e. ..........Advances,
Prepaid insurance,
Prepaid taxes,
Suspense.

Physical property,
Long term investments,
Total actual assets,
Contingent capital,
Discounts unamortized,
Property unamortized.

Memorandum

The company has appropriated from earnings for
Insurance,
Pensions,
Special trust funds,
Etc.

Credit Items

Working liabilities—i.e. ..........Audited vouchers,
Bills payable,
Dividends,
Interest,
Insurance,
Taxes,
Etc.

Accrued not yet due—i.e. ..........Dividends,
Interest,
Rents,
Taxes,
Etc.

Secured Debts

Less amounts accrued to discharge them,
Total actual liabilities.

Reserves from free surplus—i.e.
Depreciation,
Special purposes.

Balance applicable to purposes of Company, and
To shares .........................Common stock,
To shares .........................Preferred stock.
Cost Accounting

By John R. Wildman, M.C.S., C.P.A.

Part VI

Chapter XIV

Wage Systems

Before getting into a discussion of this subject a few words should be said as to the relation of Wage Systems to Cost Accounting.

The success of a professional accountant depends in a large measure upon his value to the client. His value is demonstrated by his ability to save the client money. One of the principal ways of saving money is reducing cost. An accountant should therefore be in a position to indicate to the client, the manner in which costs may be reduced. Wage systems undoubtedly lower costs and the accountant in order to act intelligently and be of most value to his client, should be familiar with the subject and the relative advantages and disadvantages of the various systems. The constant struggle of to-day is to effect the reduction of costs. Why? It may be that competition requires it, or it may be due to a desire on the part of the manufacturer for increased profits.

While it is quite evident that costs may be reduced by the reduction of any of the three elements composing same, it is probable that the item of labor presents greater possibilities of successful reduction than either of the two other elements.

There are two ways in which labor cost may be reduced. The first is through the reduction of wages. The second is through an increase in the production. The first method produces a strenuous objection on the part of the laboring man; a complaint that he is being ill-treated, or perhaps his refusal absolutely to continue at reduced rates. The second method is the more scientific and satisfactory to the wage earner and given the demand for unlimited production, is to be preferred by the manufacturer.

As an illustration, whereby the same result is accomplished, reference may be had for a moment to the tabulation which appears below and shows the application of the two methods, to the casting of pin trays.
Cost Accounting

<table>
<thead>
<tr>
<th>Workman</th>
<th>Wage</th>
<th>Production Trays</th>
<th>Cost Per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>1</td>
<td>$1.80</td>
<td>120</td>
</tr>
<tr>
<td>(2)</td>
<td>1</td>
<td>2.40</td>
<td>160</td>
</tr>
</tbody>
</table>

Considering $2.40 per day as the normal wage of a man who produces 120 trays, it is evident that the cost per unit will be .02. If the manufacturer desires to reduce the cost to .015, he may accomplish this result by decreasing the wage to $1.80, assuming that the production remains constant, or he may allow the wage to remain at $2.40 and insist that the operative shall increase the production to 160 trays.

The reduction of the wage to $1.80 brings a storm of protest from the operative. Insulance that he shall increase his production causes him to become sullen, and perhaps complain that the employer is a slave driver. In the instance where his wage is reduced, if the workman continues, it is probable that he will "soldier," with the result perhaps, that the production per day will fall from 120 to 90, thus, based on the wage of $1.80, restoring the cost to .02.

It becomes quite evident then, that a reduction of the wage is practically out of the question, and that in order that the cost may be reduced, the production must be increased, and the question before us now, is how this increase shall be accomplished.

The small boy who is paid for doing chores, does them more cheerfully than if he is compelled to do them without compensation. The school-boy who receives a quarter from his father every time his report card shows 100% in arithmetic, usually does better work in arithmetic on account of the quarter awaiting him. The quarter acts as an incentive. Laboring men are not unlike school-boys in this respect. They will do more work per day and they will do better work per day, if some incentive is offered, than if driven to the same result. Let us assume that the incentive offered to the operative is one-half of the saving brought about through a reduction of the costs. It is not unusual to find that men, if offered the proper incentive, are capable, with ease, of doubling the production. Under such a condition, with a normal daily wage of $2.40 it is evident that the cost per unit would be .01. The saving per unit will be .01 which if equally divided with the workman, on a basis of 240 units produced, will give as the workman's share $1.20. The workman's
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daily wage will then be $3.60, while the net cost of production per unit to the employer will be .015.

The conclusion to be drawn from the above is that the wage system which has as its basis, the sharing of savings with the employees, has accomplished the desired result of reducing costs, increased the wage of the employee, and thereby proved entirely satisfactory to all concerned.

The following tabulation may bring out more graphically the preceding statement:

<table>
<thead>
<tr>
<th>Wage</th>
<th>Production</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2.40</td>
<td>120</td>
<td>.02</td>
</tr>
<tr>
<td>$2.40</td>
<td>240</td>
<td>.01</td>
</tr>
<tr>
<td>Saving</td>
<td>1.20</td>
<td>.01</td>
</tr>
<tr>
<td>(\frac{3}{4}) to workman</td>
<td>240</td>
<td>.015</td>
</tr>
<tr>
<td>Workman</td>
<td>$3.60</td>
<td>240</td>
</tr>
</tbody>
</table>

In discussing the above, the question is often asked, Why not as an alternative, introduce piece rates? Here is an incentive indeed. The benefit, however, accrues largely to the workman. It is true of course, that there will be a certain amount of saving in the overhead, due to increased production, but that no saving will be effected so far as the labor is concerned.

One hundred and twenty units at .02 will cost $2.40, and 240 units at .02 will cost $4.80. To use an expression popular in connection with the discussion of piece rates, operatives "work their heads off."

Piece rates ultimately prove unsatisfactory to the workman, because of the fact that as soon as the wage becomes excessive it is sure to result in a cut. The workman thus becomes dissatisfied and unconsciously adopts a standard.

Mr. George Frederick Stratton writing on the subject in the March, 1910, number of "System," relates the following incident:
Cost Accounting

“A young man secured a job in the brass finishing department. He was a green man and started at day rates to learn polishing. Specializing on such work, he advanced sufficiently in three weeks to go on to piece work. In two months he jubilantly exhibited a pay check calling for $14.00 and was applauded by his family. ‘It’s pretty good now! but it’s as much as I’ll get if I work there ten years.’ ‘How’s that?’ inquired his father? ‘You’re on piece work and you’ll surely get more expert as the time goes on.’ ‘Sure thing,’ retorted the young man, ‘but $14.00 is the limit. If any man runs over that in our room, he’ll get his head punched—and he’ll get the rates cut, too.’”

Piece rates may be effectively employed, provided the incentive is restricted. That is to say, an incentive may be offered to increase production, if the rate is reduced on the surplus; for example:

\[
\begin{align*}
120 \text{ at } .02 & - 2.40 \\
120 \text{ at } .01 & - 1.20 \\
\hline
240 & - 3.60 (.015)
\end{align*}
\]

It will be noted from the above, that the same thing has been accomplished in the application of piece rates to the problem that resulted previously where the daily wage basis was in effect.

The application of the broad principle in the first instance is frequently seen in connection with machine work. Here the reduction in cost is effected through a saving in time, rather than an increase in production. If the average or normal time required for the accomplishment of a certain task is eight hours and the rate of compensation, or machine cost is .60 an hour, the cost of the job will be $4.80.

If by close attention to his work, and the intelligent application of all his faculties, a workman is able to reduce the time of operation to six hours, it is quite apparent that at the same rate per hour, or machine cost of .60, he has effected a saving of $1.20. Even viewed from the standpoint of equity, there would appear no reason why in the natural order of things, the workman should not receive some benefit accruing through the saving of $1.20 at his hands; why he should not receive some premium or bonus for having accomplished this saving.

Whether or not he is entitled to it from an equitable stand-

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point, it is certainly good business on the part of the employer to share the saving with him, to the end that he may have some incentive for continuing his efforts to lower the cost. If he receives half the saving, in the above mentioned instances it will amount to $.60. It will be seen that his day's pay, assuming that he does no further work after accomplishing the task set, will be made up of two elements; one being the regular wage at a fixed sum per hour, and the other the premium or bonus for the saving in time, amounting respectively to—$.360 and $.60 or a total of $4.20 for the day, as illustrated herewith:

\[
\begin{array}{ccc}
8 \text{ hours at } .60 & = & $4.80 \\
6 \text{ " } .60 & = & 3.60 \\

\text{saving } & & 2) '\$1.20 \\
\text{ premium } & & .60 \\
7 & .60 & = \$4.20
\end{array}
\]

This work taken in connection with an eight hour day, leaves the operative still two hours in which to work on another task and thereby further increase his daily wage.

It should be borne in mind that increased speed and increased production give rise to an increase in the amount of defective work and a corresponding need for the establishment of an inspection department.

Most wage systems are constructed on the principles outlined above, and while some are known as premium systems and some as bonus systems, there is only a very slight technical difference between these two terms. The word "premium" is usually employed to indicate a division in the saving in time, whereas, the term "bonus" implies an increased rate offered for speed and skill.

Up to this point, the discussion has been confined entirely to the reduction of cost based on the saving of labor. We shall also have to consider a similar saving with regard to overhead, or to overhead in conjunction with labor. The most common type of system which takes into account both labor and overhead, has for its basis what is known as the differential rate. The rate per hour is arranged on a sliding scale which increases in proportion as the number of units produced increases. The workman
who produces 12 units receives a proportionately higher rate per hour than the workman who produces only 10 units. The system operates to the advantage of the efficient workman and to the disadvantage of the inefficient workman. It is said to "differentiate" between the good workman and the poor workman. On this account the rate is known as the "differential."

While it will be seen from the tabulation herewith submitted that the increase in the number of units produced carries with it an increase in the rate, and a consequent increase in the wage of the operative, a consideration of the units taken in connection with the overhead will show that as the units of production increase, the overhead decreases.

**Differential Rates**

<table>
<thead>
<tr>
<th>Overhead</th>
<th>Overhead Cost</th>
<th>Cost per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 units at .30 = $3.00</td>
<td>$1.32</td>
<td>$1.62</td>
</tr>
<tr>
<td>11 &quot; &quot; .32 = 3.52</td>
<td>1.20</td>
<td>1.52</td>
</tr>
<tr>
<td>12 &quot; &quot; .34 = 4.08</td>
<td>1.10</td>
<td>1.44</td>
</tr>
<tr>
<td>8 units at .26 = $2.08</td>
<td>$1.65</td>
<td>$1.91</td>
</tr>
</tbody>
</table>

The advantages of the differential rate are, that it offers an incentive to the workman and increases his wage if he takes advantage of it.

From the standpoint of the employer it is equally advantageous, in that it decreases cost by increasing production, and in general raises the standard, by enabling the employer to distinguish between the efficient and inefficient workman.

**CHAPTER XV**

The Fixing of Wage Rates

The success of all wage systems depends upon the fixing of rates. Before a rate may be fixed it is necessary to determine,

1. Which are the best methods and tools to use.
2. What length of time is required by the workman of average capacity to perform a task without undue exertion?

The necessity for this sort of thing was first seen about twenty-five years ago, by Mr. Frederick W. Taylor, who was at
that time connected with the Midvale Steel Co. Mr. Taylor went
about the task of gathering statistics and classifying them in a
scientific manner, so as to permit of their use in determining the
best methods and tools to use, and the time required for the per-
formance of specific tasks. In a paper on the subject of Shop
Management, Mr. Taylor makes the statement that the two facts
which appear most noteworthy in connection with the method of
Shop Management, are,

"First—What may be called the great unevenness or lack
of uniformity shown even in our best run works, in the develop-
ment of the several elements which together constitute what is
called the management."

"Second—The lack of apparent relation between good shop
management and the payment of dividends."

"The art of management has been defined as knowing ex-
actly what you want men to do and then seeing that they do it in
the best and cheapest way. What the workmen want from their
employers beyond anything else, is high wages, and what employ-
ers want from their workmen most of all, is a low cost of manu-
facture. The possibility of coupling high wages with a low labor
cost, rests mainly upon the enormous difference between the
amount of work which a first-class workman can do under favor-
able circumstances, and the work which is actually done by the
average man. First-class men are not only willing, but glad to
work at their maximum speed, provided that they are paid from
30\% to 100\% more than the average of their trade."

Having in mind the above facts, Mr. Taylor made a careful study of the
best methods and tools to use, and evolved a system for stand-
ardizing the time of operations which may be best described in
the authors own words, as follows:

"In 1883 while foreman of the machine shop of the Midvale
Steel Company of Philadelphia, it occurred to the writer that
it was simpler to time with a stop-watch each of the elements of
the various kinds of work done in the place, and then find the
quickest time in which each job could be done, by summing up
the total times of its component parts, than it was to search
through the time records of former jobs and guess at the proper
time and price. After practicing this method of time study im-
provements for about a year, as well as the circumstances would
permit, it became evident that the system was a success. The
Cost Accounting

writer then established a time study and rate fixing department, which has given out piece work prices in the place ever since."

The Taylor system while it imposes upon the management the burden of seeing that the work is done in the time and manner specified, also provides a higher rate for increased efficiency.

In 1886 Mr. Henry Towne originated a wage system which was improved and made practical by Mr. F. A. Halsey, who in 1891 described the system in a paper before the American Society of Mechanical Engineers. The Towne-Halsey system contemplates as a standard, the quickest time in which a job has been done. The workman who does it in a shorter time receives the same wage per hour for the time he is engaged upon the job, and in addition a premium for having worked faster, which ranges from one-quarter to one-half of the saving in time.

It may be stated here, that no system has yet been evolved to which there was no objection. An objection was raised to the Halsey system in that the rate became excessive after 50% had been saved.

In 1901 Mr. James Rowan read a paper before the mechanical section of the International Engineering Congress, in which he advocated the allowance of a bonus based on such a percentage of the regular wage as the time saved bears to the standard time. For example, if the standard time for the operation were one hour, and the standard wage .30, a saving of six minutes would be equivalent to 10%, and 10% of .30 or .03 added to the standard wage, would give as the wage per hour .33. Objection was found to this system, that the bonus was too great in proportion to the saving during the first hours saved.

Among other systems which have gained both notoriety and popularity are:

Cardullo,
Searle & Nicholson,
Gantt,
Emerson.

Under the Cardullo system the wage is arranged on a sliding scale based on the percentage of time saved, but is limited by the maximum, no matter how much time is saved.

Searle & Nicholson advocate a system whereby the workman receives one-half the time saved until the saving reaches 50%,
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thereafter a percentage based on the ratio which the time saved bears to standard time. This is a combination of the Halsey & Rowan methods and would seem to overcome the objections found to both.

The Gantt system does not differ materially in principle from the other systems, except that in addition to the reward for efficiency offered to the operative, and which Mr. Gantt specifies shall be liberal, the reward shall be extended to those who supply the operative with materials and appliances to enable him to maintain the efficiency specified.

Before discussing the Emerson system, which serves as an introduction to the next topic, a few words may be said concerning the various profit-sharing and stock-distributing systems, which are becoming largely in vogue. Rewards of this description are intended to promote co-operation and act as an incentive to the workman; to decrease cost by increasing production. They are not as a rule successful. They fail usually, so far as the workmen are concerned, because of the fact that the profits do not depend entirely upon the workman. A saving may be made by the manufacturing department through a reduction of cost whereby profits are insured, only to have such profits dwindle on account of the shortsightedness on the part of the selling organization, or through poor judgment on the part of an administrative officer. This objection may be overcome, however, by fixing a standard cost at which the product is credited to the manufacturing department; any reduction in this cost being considered as a saving attributed to the manufacturing department and a part thereof set aside and distributed among the men as profits. Notwithstanding the fact that the general objection has been overcome, these systems are usually deemed to be unfair and inequitable, since it usually occurs that the men who contribute most to the profit get the smallest share thereof. Workmen as a rule prefer individual return for individual effort, which the wage system accomplished.

Mr. Harrington Emerson recognized this tendency of human nature when he originated the Individual Effort System.

The Emerson System became famous in connection with its adoption and use in the shops of the Santa Fe Railroad, to the extent that it is popularly known as the Santa Fe System. The essentials of the Emerson Systems are:
Cost Accounting

A. Standard time, or time in which the work should be done;
B. A premium for efficiency.

The premium begins at $66\frac{2}{3}$ efficiency and gradually increases until 100% efficiency is reached, in which case, the premium equals 20%. Above 100% efficiency the premium increases rapidly constituting an increase of 1% premium for each increase of 1% in the efficiency.

CHAPTER XVI

The Efficiency Department

One of the most striking innovations of recent times is that of the so-called efficiency department. It is mentioned here, on account of the close relation which it bears to Cost Accounting. It is presided over by the efficiency engineer, whose duty it is to determine the measure of return which the employer shall receive for the money which he employs in manufacturing operations.

The house-wife who purchases in the market a bushel of potatoes for one dollar, expects to receive in return the standard of quantity as well as the standard of quality. It is considered equally appropriate that the entrepreneur who invests a dollar in manufacturing operations should expect to receive a standard return of quantity and quality.

It is the duty of the efficiency engineer to endeavor to bring this about. His function is to fix standards of quantity and quality through the aid of time studies. Just as the mining engineer makes an assay of ore, so the efficiency engineer tests the quantity and quality of the material used as well as the quantity and quality of workmanship. He must have a broad knowledge of the four requisites of organization, namely:

Machinery,
Men,
Materials,
Methods.

He is the chief of staff, whose assistants are specialists in the above mentioned lines. The staff determines what shall
be done and prescribes the methods for accomplishing the work.

The line organization performs the work in accordance with the methods prescribed, and has always at its command highly specialized staff knowledge upon which it may call for assistance. Under such an organization, each branch of the work is in charge of one of the assistants.

The man in charge of machinery has as his duty the standardization of all machinery and equipment. To him is assigned the task of securing the proper types of machines and tools which are the most efficient. He advises as to their care and decides upon the location of each, with a view to securing the most effectual progress of the work through the plant. One case is reported where a 40% increase in the output was secured by a rearrangement of machines.

Another assistant chief of staff looks after men and conditions, which is one of the most interesting as well as the most difficult branches of the work. He supervises the standardizing of conditions and requirements that fall within the scope of his duties. He should plan, direct and advise as to the welfare of the employes. He should see to it that before an employe is engaged, he submits to examination as to his moral, physical and professional qualifications. Emerson goes to the extent of saying that “it ought to be as difficult to enter the services of a great corporation, as to pass the entrance examination to West Point; but once in, it ought to be a catastrophe for a man to be forced to leave; because the company provides so much that he cannot provide himself, for his physical, financial and professional welfare and because it rewards individual efficiency.”

Great attention is being paid in these days to the welfare of employes. Great corporations as well as individual employers are giving more attention to providing better light and better air. Many manufacturing plants are equipped with automatic exhausts for the removal of dangerous particles of dust, which heretofore have been allowed to fill the atmosphere in which the employes worked. Over-crowding of work rooms is being avoided and operatives are provided with a place to wash and bathe, and in many instances comfortable dining rooms in which to eat. Medical attention is furnished and ample means of escape from the buildings in case of fire provided. In order that
ample opportunity for recreation may be had, club rooms and club houses, with billiards, pool, bowling and all other appurtenances thereto, are provided by the company free of charge. In some cases the club house contains an auditorium where entertainments are held and lectures are given. One Western company went so far as to provide and equip a first-class bar, on the theory that the men would have liquor and the company preferred that they should have good liquor rather than poor.

Materials are looked after by another assistant chief of staff, who controls both the purchasing agent and the stores department. He standardizes the material to be used and specifies the kind and quality to be purchased. He prescribes the methods necessary for its care, to the end that it may not deteriorate, be wasted or be used extravagantly.

The man in charge of methods, prescribes the methods whereby standards may be attained. It is his duty to advise workmen as to the most efficient use of equipment, machines and tools. In short, he is called upon to provide methods which will result in doing the most work in the shortest time and better work with less effort.

The efficiency organization, of course, requires records and accounting. Records are needed of machines, as to their installation, operation and maintenance. It is especially necessary that breakdowns and repairs shall be recorded. With regard to materials, a record of the purchases, issues and amounts consumed, as to work performed both the quantity and quality.

An authority on this subject states that it is impossible to maintain either standards or records, unless they are tied into the cost accounting.

Standards serve to develop a predetermined cost. Taking into consideration the cost of material as determined by the standards of quantity and quality, the cost of labor as determined by the standard time of operation, the cost of the overhead as determined by the standard of the various elements composing it, it is possible to predetermine or obtain an estimated cost which may be used as a standard or basic cost and which provides for 100% efficiency.
Reconciling Predetermined and Estimated Costs With Actual Costs

As a matter of fact, experience shows that there is frequently a wide difference between the ideal or standard and the actual. What should be is one thing, and what has been is another. Broadly speaking, it may be said that standards cannot be maintained. Failure to maintain them is due to

1. Inefficient material—material which is below the standard of quality and requires more than standard of quantity.

2. Inefficient labor, due to inefficient workmen, methods or condition.

Cost Accounting is required because of inefficiency. It is the duty of the efficiency engineer to say what the cost should be. It is the duty of the cost accountant to say what the cost has been.

At this point a solution of the problem as to how a reconciliation may be effected between predetermined costs or estimated costs on the one hand and actual costs on the other, presents itself.

Predetermined costs should be technically distinguished from estimated costs, in that they are constructed from predetermined standards scientifically obtained, whereas, estimated costs are purely hypothetical and are founded on the assumption that the costs for the current period will be the same as those of the next preceding period.

As an illustration of the reconciliation between estimated cost and actual cost, attention is invited to the facts contained in the following tabulation:

<table>
<thead>
<tr>
<th>Job No. 1</th>
<th>Total</th>
<th>Material</th>
<th>Labor</th>
<th>Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>$3,080</td>
<td>$1,200</td>
<td>$1,600</td>
<td>$280</td>
</tr>
<tr>
<td>2</td>
<td>$2,200</td>
<td>1,000</td>
<td>1,000</td>
<td>200</td>
</tr>
</tbody>
</table>

$5,280 $2,200 $2,600 $480

The application of the principle to contract work, with which everyone is more or less familiar, will perhaps serve to make the
Cost Accounting

illustration more striking. It should be noted that the accounts which we are about to reconcile are those contained in the general ledger, and the question before us is,—how we may carry in the general ledger estimated or predetermined costs, without interfering with the actual costs as developed by the financial accounts, and at the same time bring them into agreement at the end of the period. This is accomplished, so far as the estimated costs are concerned, through the medium of two (2) accounts, namely:

Cost of contracts;
Reserve for cost of contracts.

It is usually possible to obtain from a contract book, wherein the estimates of the jobs are listed, a total of the entire estimated cost for all jobs during the period. From these figures, which, in the case of the above tabulation, amount to $5,280, the following journal entry may be framed:

Cost of contracts.........................$5,280
To reserve for cost of contracts..... $5,280

Let us assume that at the end of the period the actual cost of the two contracts above mentioned is $5,780. This amount will have been charged to "Reserve for cost of contracts" concurrently with the credits to material, labor and overhead. By reference to the following ledger accounts it will be seen that the account "Reserve for cost of contracts" would at this point show a debit of $5,780 and a credit of $5,280, and the difference between the two sides of the account would indicate the extent to which the estimate was incorrect.

<table>
<thead>
<tr>
<th>Dr.</th>
<th>Cost of Contracts</th>
<th>Cr.</th>
<th>Reserve for Cost of Contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated...</td>
<td>500</td>
<td>Reserve......</td>
</tr>
</tbody>
</table>

In order to effect the reconciliation, which will close out the "Reserve for cost of contracts" and make the "Cost of contracts account" show the actual cost, a second journal entry in the amount of $500 is necessary.

Cost of Contracts.........................$500
To reserve for cost of contracts..... $500
The question of reconciliation would be comparatively simple if the question of uncompleted contracts were not involved. This difficulty may be overcome by treating the uncompleted contracts as inventories in the case of both accounts involved, and proceeding as before. The above method of handling these accounts becomes more valuable when the principles applied to the cost in total are applied to the elements making up the cost. Under such circumstances the journal entry for placing the estimated cost on the books would be as follows:

```
Estimated cost of uncompleted contracts: $5,280
  To reserve for material, uncompleted contracts: $2,200
  " " " labor: $2,000
  " " " overhead: $480
```

Assuming that at the end of the period job No. 1 is completed and job No. 2 uncompleted, the proper steps are, first, to deduct the items involved in the above journal entry affecting job No. 2 and bring them down as inventories. Assuming further that the total actual cost of job No. 1 is $3,280, distributed as follows:

```
Material: $1,200
Labor: $1,600
Overhead: $480
```

the proper journal entry would be:

```
Reserve for material, uncompleted contracts: $1,200
  " " labor: $1,600
  " " overhead: $480
To material, labor, overhead: $3,280
```

It will then be apparent that by posting the above journal entries to the proper ledger accounts that, as to the material and labor in job No. 1, both have been correctly estimated, but that the overhead has been under-estimated in the amount of $200. The proper journal entry for effecting the reconciliation is as follows:

```
Cost of contracts: $3,280
To Estimated cost of uncompleted contracts: $3,080
Reserve for overhead, uncompleted contracts: $200
```
Cost Accounting

A further illustration of the application of these principles will be found in the following tabulations and journal entries. The journal entries may be used in cases where, in the absence of a cost system, it is desired to point out to a client engaged in contracting, the measure of inaccuracy on the part of his estimating department.

<table>
<thead>
<tr>
<th>No.</th>
<th>Estimated cost of various contracts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$10,000</td>
</tr>
<tr>
<td>2</td>
<td>20,000</td>
</tr>
<tr>
<td>3</td>
<td>25,125</td>
</tr>
<tr>
<td></td>
<td>$55,125</td>
</tr>
</tbody>
</table>

FIGURES SHOWN BY GENERAL BOOKS

<table>
<thead>
<tr>
<th></th>
<th>12/31/08</th>
<th>Purchases</th>
<th>12/31/09</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory, material</td>
<td>$3,000</td>
<td>$25,000</td>
<td>$2,000</td>
<td>$26,000</td>
</tr>
<tr>
<td>&quot; uncompleted jobs</td>
<td>15,000</td>
<td></td>
<td>14,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Labor</td>
<td></td>
<td>18,000</td>
<td></td>
<td>18,000</td>
</tr>
<tr>
<td>Overhead, various items</td>
<td></td>
<td></td>
<td></td>
<td>$45,000</td>
</tr>
<tr>
<td>Actual cost</td>
<td></td>
<td></td>
<td></td>
<td>$58,500</td>
</tr>
</tbody>
</table>

Cost of contracts (estimated) | $55,125 | $55,125 |
To Reserve for cost of contracts | 58,500 |
Reserve for cost of contracts | 58,500 |
To Material, labor, etc. | 3,375 |
Cost of contracts | 3,375 |
To Reserve for cost of contracts | 3,375 |

CHAPTER XVIII

The Report of the Cost Department

It will be remembered that at the beginning of the first section the question was asked as to what we were going to do with the information which was being sought. We may now answer the question by showing that the information which we have ascertained through the medium of our cost system is to be presented to the proprietor or administrative officer as the case may be. Such an individual it will be remembered may desire this information for the purpose of ascertaining the profits on individual orders or for the purpose of using the statistics resulting as a basis upon which to found administrative judg-
The form employed for presenting the information in either case is the cost-sheet. The information shown therein may be with regard to shipping orders or finished goods orders. If the proprietor desires information as to profits the sheet will be laid out in accordance with the shipping orders. If statistical information is desired the cost-sheet will show the information on the basis of finished goods orders. In certain instances a statement may be desired which will show profits as well as statistics, and in such cases, a cost-sheet, both complicated and difficult to prepare will result as the statistics making up the cost of the component parts of the shipping orders will have to be shown.

[THE END]
2. **The Struggle to Incorporate All Machine Operation in the Unions**

After new machinery had been installed in a trade, the troublesome question arose—"What shall be done with the unskilled worker who comes with it, and with the machinists, electricians, and engineers who had no place in the industry before the change?" To keep them out means to maintain an army without the union's jurisdiction, too powerful to be neglected with safety. To take them all in at once may infuse too large an unsympathetic element, and besides, requires the counteraction of the hatred and prejudice which such changes bring. In 1902 at the convention of the Iron Moulders' Union, the president said in his opening address: "Laughed at some years ago, the machines have demonstrated their usefulness. . . . It is no longer the simplest kind of work that is made upon the moulding machines. . . . Becoming alarmed at our attention to the machine question, and misinterpreting our purpose to mean a limitation of output . . . the employers have determinedly opposed our proposition to employ moulders. The so-called 'unskilled' laborers have become highly specialized. . . . Our original attitude toward the machine was a shortsighted and mistaken one, and the resulting injury cannot be removed by a perpetuation of the early prejudice. After careful consideration with my colleagues, I am prepared to recommend to this convention that it make provision whereby competent machine operators will be accepted into membership of the Iron Moulders' Union."

The committee appointed, reported while the convention was still sitting: "As the result of the trend of events and of the policy, the organization has been pursuing, a class of specialist moulders has developed, to whom the mechanics of the trade have been inclined to deny the privilege of membership. Most of them are to-day outside of the pale of the organization. We feel
that so long as they remain in their unorganized state, they will constitute an element of danger to the Iron Moulders' Union, and be a constant menace to the wages and conditions of the more skilled followers of the craft. Taking that view of it we are constrained to advise that the union broaden its conception of eligibility to membership, and extend its sphere of influence until it will as nearly as possible, embrace all competent moulders in every branch and subdivision of the trade."

The resolution then takes up the question of classes of specialists; thus, "Shall special cards be issued to 'Bench Workers,' 'Moulders,' 'Machine Operators,' etc.? It points out the injustice of such a scheme as well as the fact that it is fraught with danger. It holds it to be a radical error to organize special groups with interests and concerns other than those of the general union. Such an action would make heterogeneous, a body that must find its strength and power in the homogeneity of organization and interests. Hence the resolution continues: "We strongly advise that all caste feeling be eliminated from our policy; that we recognize the truth of the suggestion that in a few years, the Iron Moulders' Union of North America will not be enabled to yield adequate protection to its members, unless it includes among its members all who work at moulding, be it upon the simplest or the most complicated work."

To carry out this policy, the core makers, artisans closely allied to the iron moulders, were at once taken into the union, after being kept out for seven years. Then the constitution was amended so that this recommendation became a permanent guide in the union's policy. The new addition adopted in July, 1902, reads: "Resolved, that it be accepted as the future policy of the Iron Moulders' Union of North America, that we shall seek to establish our jurisdiction over the moulding machine operators, and all those who work at moulding in the numerous subdivisions into which the specialization of our trade has divided it." And, further, "that it be an instruction to the incoming officers to organize all competent machine operators, radiator moulders, etc. . . . granting them a special charter or affiliating them with locals already in existence." Thus the iron moulders did what they could to increase their jurisdiction and maintain the control of the labor market of their craft.

The glass workers tried hard to keep out foreign-skilled labor
before the machines came. Thus the Glass Bottle Blowers' Association provided that no foreigner can be admitted during the blast of a year, i.e., during months of September to following June or July, except by special consent from the president. Any member who aided a foreign blower in coming, was to pay a fine of one hundred dollars under penalty of expulsion. The initiation fee for the foreigners was to be one hundred dollars. But as this led to scabbing and to filling non-union shops, it was reduced to the fee for natives, i.e., three or five dollars. The Flint Glass Workers' Union made the same conditions, but found that it had to reduce its initiation fee to fifty dollars. *The National Glass Budget* (June 6, 1906) complains that before the plate glass blowing machines were introduced, "foreign blowers came to this country, and planked down five hundred dollars in initiation fees." But when machinery came to stay, when the high degree of skill and special dexterity were undermined, the Glass Workers' Union found that they could not risk the presence of so large an army of workers outside the fold. They therefore reduced the initiation fee, and inaugurated a "welcome to our midst" policy which they hope will give them the jurisdiction of the largest number of workers in the trade.

That the printers should covet the most far-reaching jurisdiction and control is only natural in the light of their policies that we have studied. They met the problem first when the number of women who took to typesetting grew to such numbers, that they became a serious menace to the men in the same locality. With the machines casting their shadow before them, the union began to fear the women more. In 1887 (35th Convention, p. 107) the "Committee on Female Labor" brought in a report that was incorporated into the Constitution. It declared, among other things that, since competition of a serious nature was threatened by the women who were unorganized and under-priced, all subordinate unions should organize special female locals and guarantee to them an equal wage, even at the risk of strikes with employers. "The Typographical Union of New England has spent perhaps five thousand dollars in endeavoring to secure union wages for organized women, but employers immediately threatened to discharge all women who organize." (United States, Ind. Com., Vol. VII, p. 176.) To demand a specially low rate for women would have led to their employment.
in preference to the men. But with wages equal, an employer would rather have a man, since he could usually stand the strain better and needed nobody to help him lift heavy cases of type and composition. Expediency rather than gallantry led to the adoption of the principles of "equal pay" among the printers.

The second problem of this nature presented itself to the printers for final solution in 1900. For a long time it was a great question as to the proper disposition of those machinists who are employed in the printing shops to look after the linotypes, keep them in repair, and clean the finer machines so that the operator will always have a machine in the best working order. They had to be union members; hence, the printers' union decided that the best thing it could do at the beginning was to demand that all machine tenders be members of a union. Some of these joined locals of the International Typographical Union, and others the Machinists' Union. In the cross relations difficulties without end arose. If the Machinists' Union declared a strike, should those working in printing offices leave the machines? If they did, other machinists who were members of the Typographical Union, and who were not affected by the order, applied for the vacated positions and could not be refused. Thus came the anomalous condition of a union man "scabbing" on another union man.

At the 46th Convention in 1900 (p. 65, Sec. 136) it was therefore decided after a long and bitter debate to transfer all machinists employed on linotypes to the Typographical Union. The printers, needless to say, rejoiced at this opportunity of obtaining a more inclusive control of those employed in the printing trade, but the Machinists' Union was up in arms until the American Federation of Labor decided that the principle of organization by trades had to give way before that of organization by industries. (See Brewers' Union vs. Engineers' Union.) The printers were, therefore, upheld in passing the following addenda to their constitution: "All machine tenders shall be members of the International Typographical Union, and local unions shall provide and maintain a scale covering such positions."

By the methods and the means that we have seen, organized labor tried to limit the output directly or indirectly and keep ever increasing its jurisdiction, so that those for whose welfare it was existing were being saved, to a slight extent, the hardships that
NUMBER OF STRIKES DUE TO SPECIFIC GROUPS OF CAUSES—BY TRADES, 1887–1894

<table>
<thead>
<tr>
<th>Causes</th>
<th>Building Trades</th>
<th>Stone Quarry and Cutting</th>
<th>Glass Trades</th>
<th>Printing Trades</th>
<th>Tobacco and Cigars</th>
<th>Coal Mining and Coke Manufacturing</th>
<th>Clothing Trades</th>
<th>Cotton-Wool Weaving</th>
<th>Boots and Shoes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased wages or union scale</td>
<td>9,272</td>
<td>714</td>
<td>67</td>
<td>305</td>
<td>1,458</td>
<td>3,234</td>
<td>1,598</td>
<td>183</td>
<td>211</td>
</tr>
<tr>
<td>Against decrease of wages</td>
<td>980</td>
<td>66</td>
<td>2</td>
<td>38</td>
<td>280</td>
<td>1,517</td>
<td>445</td>
<td>111</td>
<td>162</td>
</tr>
<tr>
<td>In re hours of labor</td>
<td>6,786</td>
<td>705</td>
<td>31</td>
<td>133</td>
<td>3</td>
<td>145</td>
<td>458</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>In re time and method of payment</td>
<td>586</td>
<td>217</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>4</td>
<td>177</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>Recognition of the union</td>
<td>2,163</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>.2</td>
<td>180</td>
<td>1</td>
<td>.2</td>
</tr>
<tr>
<td>Sympathy strikes</td>
<td>1,778</td>
<td>119</td>
<td>5</td>
<td>9</td>
<td>606</td>
<td>441</td>
<td>68</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>Against non-union men</td>
<td>1,909</td>
<td>325</td>
<td>14</td>
<td>57</td>
<td>60</td>
<td>87</td>
<td>176</td>
<td>20</td>
<td>71</td>
</tr>
<tr>
<td>Reinstatement of men—foremen</td>
<td>86</td>
<td>.3</td>
<td>8</td>
<td>4</td>
<td>28</td>
<td>.7</td>
<td>100</td>
<td>82</td>
<td>31</td>
</tr>
<tr>
<td>In re apprenticeship</td>
<td>205</td>
<td>37</td>
<td>1</td>
<td>30</td>
<td>13</td>
<td>.8</td>
<td>20</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Against introduction of machinery</td>
<td>11</td>
<td>.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>778</td>
<td>64</td>
<td>2</td>
<td>44</td>
<td>6</td>
<td></td>
<td>389</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>24,614</td>
<td>2,258</td>
<td>243</td>
<td>659</td>
<td>2,543</td>
<td>6,110</td>
<td>3,581</td>
<td>468</td>
<td>657</td>
</tr>
</tbody>
</table>

Organized Labor's Attitude Toward Machinery
accompany the introduction of labor-saving machinery on a large scale, and its own corporate life was made less precarious. How few were the struggles against these machines, and how numerous were the strikes against the problem of apprenticeship, shorter hours, time scale, and the others that we studied in this chapter, can best be seen from the affixed table. It is compiled from the figures gathered by the labor bureaus of the United States and the separate states affected, and also by the United States Industrial Commission in 1900–1901, for the years 1887–1894, the crucial period of change from hand to machine in the industries that we made focal in this study.

The table points clearly and definitely to the answer to the questions which many students of labor problems ask, “To what extent has organized labors’ opposition to machinery been a factor in industrial struggles?

CHAPTER VI

General Conclusion. Estimate of Labor’s Position

We have thus far noted that a further introduction of machinery generally strikes at the root of organized labor, weakening its much-coveted monopoly. Our examination of the policies adopted by representative labor bodies leads us to conclusions which group themselves under two heads.

At the beginning we invariably find a hatred, more or less intense, a hostility, more or less bitter, manifested by the artisans throughout the transition period, when new labor and skill-saving machinery is being installed in a craft. The worker finds that not only is he about to suffer the temporary loss of his position, but also that his means of livelihood, his skill and dexterity, acquired by years of tedious and patient toil, are permanently threatened.

In this early introductory stage the labor unions have not as yet had time to survey the new conditions, to determine the enormity or the gravity of the change, nor to feel the pulse of the discontented journeyman. The policy and sentiment of the leaders have not yet been crystallized into a definite program. All the stories of rack and ruin, of conflagration and revolt that history tells us in connection with the Industrial Revolution are true, but these violences were committed by individuals unor-
Organized Labor's Attitude Toward Machinery

organized and without a representative leader. If these early craftsmen had been bound in some kind of union, we can safely say that the action which would have been decided upon in convention, after argument and deliberation, wrong economically and socially as it might have been, would not have been characterized by the violence which was visited upon so many industrial towns. But the law in England saw fit to forbid labor from organizing; hence it must be held responsible for a great part of the fury and riot of the day.

Whatever animosity is shown in this early period of mechanical innovations is individual, and not the result of a general policy formulated by the union. The average union man is constantly complaining that he cannot understand our present adjustment. He quotes figures which show that the machinery in England is doing the work of 500,000,000 men; in Massachusetts where 500,000 are employed, the work of 50,000,000 men; that one man and two helpers can spin as much as 100 spinners of a century ago; that one weaver can produce what 54 did then; that 150 workers in a textile factory do the work of 97,000 workers of a century ago, and that one iron and steel laborer turns out 1,300 times as much as any one of his predecessors. His question is, “Why, despite these figures, do we find poverty and progress developing simultaneously?” This paradox he constantly quotes. He urges that work should be done by machinery, that the machine should supplant men until the worker becomes the director and the machine the directed. To him the machine should come close to life, and “insensibly teach truth, precision and adjustment to the universal laws of human needs, respect for the wise American idea that labor saved is labor released for higher and nobler toil.” But instead of this, he complains the average machine tender is brutalized and stultified by the machine, he is enslaved for a longer period than heretofore, his mind becomes stupefied, his nervous system wrecked at an earlier age because of the high speed at which the new work must be carried on. “Why this difference between what is and what ought to be?” is his query. Since he receives no answer which satisfies and convinces him, he allows his bitter feelings to work themselves out in action.

But within a short time after the labor organization has scanned the situation, has realized the direction and the trend
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of the change a general plan is adopted which is conciliatory in its attitude toward the introduction of new mechanical appliances, and encourages their adoption. Webb (Industrial Democracy, V. II, p. 393) publishes the results of a royal commission’s long and tedious investigation among labor unions on machinery and kindred topics. The report finds not a single case where an English labor union fought the introduction of machinery. We know of a few cases where they did, but the fact that the commission either saw fit to neglect these, or that it did not find any, reflects the infrequency of the practise among organizations of labor. “The Amalgamated Association of Operative Cotton Spinners, instead of adopting a policy which obstructs the introduction of new machinery actually penalizes the employers who fail to introduce it.” (Webb—Ind. Dem., V. I, p. 143.) While this case is exceptional and extreme, though not the only one of its kind, it nevertheless serves to illustrate the conciliatory attitude which labor unions have acquired. The president of the Linotype Company of England, in an address to the stockholders (1893; also in Webb—Ind. Dem., V. II, p. 407), said: “Nearly all the offices which have taken the linotype are union offices—in some cases working by day, in others by piece. Surely that is sufficient proof that the labor difficulty is not a serious one. The union men have, in my opinion, acted very fairly toward us.” Considering the year 1893, when the introductory period was not yet over, this citation, coming from one whose position would lead him to be rather unfriendly to labor and to blame it for the shortcomings of his new device, becomes very significant.

We have seen enough of union policies and actions to safeguard us against imagining that organized labor made loud and continued open demands for the introduction of new machinery. Despite these citations of the friendly attitude, industrial quarrels are constantly going on during the periods when new and improved machinery is being installed in a trade. All these strifes, however, are directed not against the machines themselves but against the methods of their introduction. Sidney and Beatrice Webb, in their study, “New Processes and Old,” speak of this as the “Conditions of Introduction.” Labor maintains that production to-day is a social process; machinery, one of its greatest agents, is a God-given gift, not to the chosen few, but to all mankind. Labor argues that it has as much right as
Organized Labor's Attitude Toward Machinery

the capitalist to the machine for the leverage of the crane, Nature's power in the waterfall, in steam or in electricity, the laws of planes and pulleys—all these operate equally for all. The introduction of machinery, though a decided blessing to the entire community, often brings untold misery to the workers of a craft. It means longer hours, less pay, greater intensity of application, nerve-racking strain, and mechanical processes whose monotony and absolute regularity deaden the sensibilities and result in stunted physical and mental growth. Mr. Black, editor of the Moulders' Journal (May, 1897), voices the sentiments of the laborer when he writes, "In a properly constituted society, these innovations would be hailed with pleasure, for decreasing the arduous toil in supplying the necessities. But under present conditions the worker has learned only too well that progress in this direction means further degradation and poverty for him. . . . Thus it is that we often find mechanics viewing with disfavor every change that enables them to increase the effectiveness of their labor, and often throwing obstacles in the way of its success." Mr. Martin Fox, his colleague, adds, "Shall the genius of man conjure up monsters and constitute himself their slave? Or, shall the power of reason and invention be adapted to their true purposes and mark in their progress brighter days, happier lives and a more beautiful and perfect humanity?"

The union men therefore feel that they have a right to some of the blessings of invention. They demand a voice in shaping the policy and determining the condition under which new machinery is to be introduced, so that the inevitable hardships which result to themselves and their families will be minimized. They protest against the employers' stand which denies them a consideration in the industrial life and progress, against the position which declares, "The workmen must not be expected to welcome the machines which are to dispense with their work and wages any more than the victims of the guillotine were expected to admire the monstrosity which was erected to cut their heads off. The naive assumption that the machine is the workmen's friend is a bit of bourgeois hypocrisy which fools no one to-day. The machines are not invented or introduced for the benefit of the workman." (National Glass Budget, V. 19, 1903—Employers' Official Organ.) The union artisan, with his narrow economic
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ken refuses to accept this second "God in his infinite wisdom" policy, and believes that he has a right to be consulted. He seconds John Graham Brooks' Attitude, "If it (machinery) is introduced under conditions in which the laboring men have no voice in determining, the laborers cannot secure their share of advantages and their organizations are weakened and destroyed." ("How to Secure Machinery's Advantages?")

From the social point of view, organized labor is justified in its demand for a voice in matters affecting the method of introducing machinery. The machine is a gift to society, intrusted temporarily to the guardianship of a few fortunate members of the community. In utilizing their trust, they must be given the greatest personal freedom consistent with the welfare of the rest of mankind. At no time shall they be permitted to construe industrial liberty to mean industrial license. There can be no just reason to explain why the workers of a craft should be martyred for the progress of industries.

It is often urged that machinery really causes no such upheaval as we have seen, since its success necessitates either establishing new industries or augmenting old ones. Thus, if the linotype is successful, additional mechanics are wanted in the machine shops, more iron and steel must be manufactured, more coal and iron must be mined, a greater number of cars and engines must be constructed for transportation, more men are needed on the railroads, ad libitum. All this is true, provided we add "in the long run," "on condition that no improvements are occurring in the other industries," and "if no material increase in population takes place."

Labor is more mobile to-day than it ever was, but it is not so developed that a printer can go into railroading or machine-making or mining at a moment's notice. A man who has spent years or a generation in one industry is loath to leave it and learn a new one which necessitates new habits of actions, new muscular and nervous adjustment, and acquisition of a new kind of skill and deftness. All these dependent industries that are augmented are not in his vicinity; they may be two thousand miles away. It takes considerable time, trouble and money to move one's family to the other end of the continent. But we must remember that our population is dynamic, ever increasing; hence there are no vacancies awaiting our displaced friends'
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arrival. Then, also, each of these industries is not in a static state, each is being improved, and in all probability each has its quota of idlers. There is, no doubt, that according to the impersonal view of theoretical economists, an adjustment will occur in the long run, but mankind’s needs are pressing and immediate and the theorizer’s prophecy of future comfort affords little relief in the present.

In addition to the insecurity of employment and the economic and social hardships which the machinery brings, the worker bases his claim to the right to be consulted in its introduction, on the increased danger to life and health. We are too familiar with the accidents in the modern factory, with the prevalence of lung trouble, nervous diseases of one kind or another, and the lead colic of the printer. In the five years, 1897–1903, there were 2,994 deaths among the members of the Typographical Union. 1,323, or 45%, of these were due to respiratory trouble; 38% of these were young men whose ages ranged between twenty-one and thirty-two. In 1903, 27% of all the deaths in the union were due to tuberculosis, not counting those who suffered from lung trouble but whose immediate cause of death was pneumonia. The death rate among the printers is higher than among the miners, despite the large lists of mortalities due to cave-ins, explosions and similar accidental causes.

Mr. Miles Humphrey, ex-president of the Amalgamated Iron and Steel Association, said: “Before the machinery period began the work required more muscle and less nervous energy. It demanded more strength and less vitality. There was more tugging and straining but less danger. When a man was killed fifty years ago the mill was shut down until he was buried.” But how different are the steel foundries of Pittsburg to-day with their “slaughter houses,” the rod-mills, where red hot rods leap and twist about like snakes, often whirling themselves around the body of a workman and crushing the life out of him instantly or spearing him, if he is to be dispatched with greater pain.

It is amazing to see how calmly the workers take these fatal accidents. The frequency of occurrence has made them insensible to the human emotions and sympathies which death provokes. When a man is hurt in the Pittsburg mills he is at once carted to the private hospital maintained by the steel cor-
porations. Only his most intimate friends and relatives stop to inquire about him; the others go about their business, for it is a daily occurrence. They envy him for "the easy money he is making in settling with the company." Mr. Casson (Munsey, 5/07), speaking of accidents among the Slavs and Huns in the steel foundries of the Lake Regions, says: "'Throw him on a heap; dead man no good,' these workers will say when one of their number is killed. . . . In the steel mills heavy masses fall upon the workers, crush life and limb, splashes of molten steel fly from caldrons, strike or miss, cables break, unforeseen defects in cranes and derricks cause them to fall; if a worker succeeds in these hairbreadth escapes he generally pulls his hat over his eyes, swears, and jumps back to his place. Such incidents are all in the day's work." Mr. Carnegie himself often quotes the words of Hudibras:

"Oh me! what perils do environ
The man who meddles with cold iron."

We often explain and justify profit on the ground of risks; some economists even go so far as to erroneously explain the entrepreneurs' returns on the ground of risks, but few, if any, have ever justified organized labor's demand for an increased wage after the introduction of machinery on the ground of increased risks.

Mr. Edward M. Bemis (Ethical Side of Trade Unionism—Boot and Shoe Journal, 10/1900) argues that a trust seeks to end competition among minor dealers and to maintain a uniform profitable selling price by obtaining a monopoly of the commodity. In the same sense, a labor union is a trust; it seeks to prevent competition among the workers and to establish as high a price (wages) for its commodity (labor) as possible. If to this conception we add that the second ethical principle of trade union is a "compulsory maintenance of a standard of life," then we can readily understand why labor feels that it is socially just in demanding a voice in the conditions which govern the introduction of labor saving innovations.

It has also been charged that in demanding changes and various modifications in the methods of introducing new machinery, the labor unions have engaged in dilatory tactics which have
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been bad for the industry. While we cannot justify this interference, which delayed the highest development of all the possibilities of the machines, these practises were not entirely devoid of economic benefits. Their methods of procrastination and their attempts to force their policy of partial control of the machines and representation in determining the method of introduction, often acted as wholesome deterrents to overstimulation and overproduction in a specific industry. The invention of a machine, which cheapens the process, increases the output and tends to free the employer from the workers and their organization, always stimulates the manufacture of the commodity in question. An increased demand is often estimated far beyond rational limits and large sums of capital are tied up in this new phase of the industry. When the product is put on the market it is found that the supply is far in excess of the actual demand; the errors of calculation and judgment become apparent, but it is too late. The amounts realized at the sale are far from the sum necessary to meet the obligations that were incurred, and innocent as well as guilty manufacturers go down in the crash which follows the resulting maladjustment. The slow, hesitating policy of organized labor has often acted as a beneficial interference in a period of industrial overstimulation when capital was high strung. True, machinery should make a change in an industry, but if the change is slow and the result of due reflection, it will be evolutionary and not revolutionary. For a number of years after the introduction of machinery in the boot and shoe industry the number of business failures among the manufacturers was far greater than it had ever been before or since. The Massachusetts Labor and Industry Report for 1870–1872, in tracing these business troubles among shoe manufacturers, ascribes most of them to the cause we suggested, viz.: unwarranted stimulation because of the introduction of machinery. The National Labor Tribune (6/27/1877), speaking of the same industry, says: "It is a strange result to see approximating perfection in machinery, lessening profits and pushing capitalists and labor to the wall, but that is the tendency of our time. If the owners of machinery could sell all they made, at the high prices expected, they would prosper indeed; but they cannot sell more than people can buy, and the latter cannot buy more than they earn by labor. Profits are thus on the down grade. . . .

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This is being done through machinery itself, the very agency relied upon by capital to enrich itself."

A second beneficial result which could follow the recognition of labor's demand in the machine question would be to make competition among producers less severe and more equitable. Any industry where organized labor has been practically annihilated by the introduction of machinery will serve as an example. We find in all of these a most ruinous competition which leaves the ranks of the manufacturers strewn with the victims of the last season, each factory owner uncertain when his time will come. In the boot and shoe industry we see: (a) raw material, leather, fixed by the leather trust; (b) machinery bought and sold at a price and royalty determined by the shoe-machine trust. Monopoly prices therefore fix a uniform cost of these articles for all. Physical maintenance, building rent, light and fuel are also fixed items on the manufacturers' books. But there is one variable factor in the manufacturer's cost if no labor union controls the craft, and that is labor. In the course of competition among manufacturers each finds it necessary to underbid his rival by reducing the labor cost. In such an industry, then, wages are cut first and last. This accounts for the increasingly low wage scales which are found in the boot and shoe and kindred industries. But if labor were organized and recognized, it, too, would be bought by all manufacturers at a uniform monopoly price. Competitive prices would then be set solely by the quality of the commodity. Labor would not pay the cost of the struggle among the factory owners, as the most skillful manufacturer who turned out the best shoe at a given price would succeed.

The president of the United Brotherhood of Leather Workers (Leather Workers' Journal, 7/1902) complains of the low wages in the craft. He then adds: "The only answer given to the workman's request for a higher salary is, 'wages cannot be increased as we are already selling goods below a legitimate price.' The constant cheapening of men has resulted from the ruinous competitive policy." Mr. McDermott (editor of the Boot and Shoe Record, employers' paper) said to the United States Industrial Commission (Vol. XIV, page 208) that there is a very active competition among manufacturers in his trade. There is no agreement among employers as to output, prices or
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wages. The competition is so sharp that it keeps them on the constant watch to see where retractions can be made. His direct examination by the commission shows the results of this trade condition:

*Question.*—"Does competition have anything to do with fixing the price in the shoe industry?"

*Answer.*—"Very decidedly."

*Question.*—"Has it been so sharp that it has become ruinous?"

*Answer.*—"It has, figuring very close; there have been a great many factories that have failed from time to time."

The union's position which demands a share of the advantages inherent in new labor-saving machinery by being accorded the right to help decide the condition and methods under which it shall be introduced, is therefore not without economic and social justification.

Our economic class struggle would be less intense and would not be characterized by its usual bitterness if we learned not only to consult labor in every significant industrial change, but also to look to labor unions for the best expression of the wishes and spirit of the labor population of the country. Except in a few of the very highest skilled crafts labor is no longer individual but social. Skill is always individual, but since the modern tendency is to replace it by automatic machinery, labor loses this personal characteristic. Judgment and thought are also reduced to a minimum by the use of the machines. These, too, are the personal elements in labor, which are being displaced. The more the processes of production are mechanized, the less is the personal factor of the labor recognized. Our whole modern industrial progress is moving in this direction. As labor loses its individual characteristic, its members begin to approximate a common level; collective bargaining takes the place of individual competition, for the law of evolution is the law of organization and interdependence. Capital to-day is social, but not to the same extent that labor has become so. The recent demands upon labor have been so great, its changes from an individual to a social organization so rapid, that Trade Unionism, as a social institution, shows phenomenal growth. So deeply intrenched is it in our industrial and social national life, so broad and inclusive, so far-reaching that "American Trade Unionism is the
American problem.” Prof. Hollanders adds (“Studies in American Trade Unionism”): “During the past few years the labor problem has risen steadily in importance in the United States, until at present it may not unfairly be described as the dominant economic concern of the American people. In part, this is a result of a temporary lull in other storm centers. The currency has been narrowly rescued from acute malignancy only to be cheerfully consigned to a chronic indisposition. The tariff has passed from an economic issue to a fiscal device. The control of industrial combinations and the regulation of railroad rates are still in the outer vestibule of loose thinking and careless talking.”

Not only is the problem of Labor Unionism, the labor question, the “dominant economic concern of the American people,” but it is fast becoming central in economic and social philosophy, for the present movement is not from, but towards the spirit of democracy. The political campaign of 1908 clearly showed this tendency. The Eight Hour Law, Injunctions, Strikes, Boycotts, Blacklists—these are questions highly important and exceedingly vexing to the legislative and the judiciary bodies to-day. Unless the labor question is met in a broad and liberal spirit and provided for with economic foresight, we may come to a stage in our development where our question of tariff, transportation, finance, concentration of industry and its control will become tangent to it, for it affects the greatest number of our people in a manner most vital and direct.

[THE END]
The Examination System

There are indications in England, as well as in Scotland, that the examination system is not regarded with unanimous favor, and indeed is being subjected to serious criticism. In a recent lecture on "Examinations and their Bearing upon National Efficiency," before the Royal Society of Arts, Mr. P. J. Hartog, M.A., B.Sc., Academic Registrar of London University, expressed the belief that examinations in general are not entirely accomplishing their objects. One of these objects he stated to be the test of the efficiency of a person for the practice of his technical calling or profession.

Mr. Hartog’s lecture dealt with the subject generally and did not refer particularly to examinations for accountancy. The Incorporated Accountants Journal for March, however, applies his views to a consideration of accountancy examinations and states its own views in the matter. A part of the article is reprinted on another page of The Journal.

It will be noted that The Incorporated Accountants Journal is not wholly in agreement with Mr. Hartog, although it admits the truth of many of his contentions. It recognizes the fact that
"memory tests" are not altogether safe evidence of a candidate's efficiency, and that "capacity tests" are far from ideal. It recognizes, too, the fact that the examination room often has an unfortunate effect upon candidates, and prevents them from showing their real ability. On the other hand, it urges, with reason, that the accountant must have certain facts in his memory, and should be able to work quickly as well as accurately, and that examinations often have a valuable disciplinary effect.

Much might be said in support of each side of the argument, and it is quite probable that the discussion will be carried on in England for some time to come before any radical changes are made. For our purpose it is enough to recognize the importance of the topic to accountancy in this country. The examinations for the C. P. A. in most of the states are good, and they are constantly improving. The standard is becoming more nearly uniform and they are giving a more and more efficient test of the qualification of candidates. This fact, and the fact that there is room for improvement, is clearly shown by the specimen C. P. A. examinations reprinted in the C. P. A. department of this issue of The Journal. But are they the best test, after all?

At the present time a candidate in the more important states usually has to meet three requirements. First, he must have a satisfactory general education, evidenced by a high school diploma or its equivalent. Second, he has to have a certain amount—usually three years—of practical experience. Third, he has to pass examinations in Theory of Accounts, Practical Accounting, Auditing, and Commercial Law. Is there not a slight inconsistency in these requirements? If general education is to be tested by attendance for four years in a high school, and technical ability by three years in accounting work, why should special education in accountancy be tested merely by examination? Why should not attendance in some recognized institution giving instruction in accountancy education be recognized as important? There is little doubt that this professional education does as much as either the high school education or the actual practice to qualify a man for useful service as a certified public accountant.

This does not mean that examinations should be done away with entirely. It merely means that the tendency of the past to do away with them as far as possible should be followed out to its logical conclusion. The Regents of the State of New York
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have already indicated their belief in the superiority of the high school work over that generally shown by examinations, by making the requirements for the qualifying certificate nearer those of the high school diploma. The new C. P. A. syllabus issued by the State also shows a tendency in the right direction by broadening the scope of the examinations and by stating that in the preparation of them, a professional training extending over a period of time similar to that of the other professions is assumed. It may confidently be expected that, as the next step, the desirability of obtaining the professional education in an approved School will be recognized. Such recognition would go a long way toward the establishment of these professional schools all over the country, and would result in a higher standard for the candidates and for the profession as a whole. Moreover, it would thus be possible to eliminate many of the undesirable features of examinations, even though the examinations, as a final test, were retained.

Sinking Fund Reserves Again

Some explanation is almost necessary to accompany an article on the subject of sinking fund reserves, which has occupied, perhaps, more space than any other in THE JOURNAL during the past few years. The article by Mr. Hutchins which appears in this issue merits attention because it approaches the subject from a new viewpoint, one which will certainly arouse interest and comment on the part of accountants, whether they agree with it or not.

In submitting the article, Mr. Hutchins says:

I am of the opinion that the principle of reserves is fundamentally wrong; that it is a survival of olden thoughts and olden practices which have no right to influence present practices.

From this mistaken notion has come all the discussion in your JOURNAL as to the treatment of sinking fund reserves, and I am enclosing a short paper giving my views of the matter.

We commend the article to the attention of accountants and others who may be interested in this frequently discussed subject. Correspondence relative to it will be welcomed.
Uniformity and Reciprocity

A recent report of the Committee on Regents’ Rules of the New York State Society of Certified Public Accountants contains the following interesting paragraphs:

“Pursuant to statute only citizens of the United States are eligible for examination in the states of Connecticut, Georgia, Louisiana, Massachusetts, New Jersey, and Pennsylvania, while in the states of California, Colorado, Illinois, Maryland, Minnesota, Missouri, Montana, Nebraska, New York, Ohio, Rhode Island, Utah, Virginia, and Washington, any person who is a citizen, or who has duly declared his intention of becoming such, is eligible for examination. In the states of Florida and Michigan there is no requirement as to the person desiring examination being a citizen of the United States, or that he has even declared his intention of becoming such citizen.

“The committee desires to emphasize the importance of the authorities of this State having the power to wholly regulate the practice of the profession in this State, and at the same time appreciating the importance and advantage to be obtained by making it possible for all qualified certified public accountants of other states be admitted to the profession in this State, and thereby become not only de facto but de jure members thereof, thus making them subject to all the responsibilities in connection therewith, while at the same time extending to them the benefits and privileges accruing through reciprocity.

“The systematic agitation of the subject of standardization has created much interest and stimulated several of the state boards to raise their standards. It has been a source of pleasure to the committee to note that representatives of several states have evidenced a desire to raise their standard to a plane intended to meet the approval of the Regents of the University of the State of New York. Several of these representatives have suggested that the issuance of a syllabus is of great importance to the profession, and have postponed their own issues until such time as they can secure possession of the new syllabus now being prepared by the Board of Regents of the State of New York.”

A committee of the New York State Society of Certified Public Accountants, of which Mr. Charles F. McWhorter is chairman, is making a very thorough study of the certified public accountant’s requirements in the different states with a view to the encouragement of uniformity and reciprocity. The Journal has received from Mr. McWhorter a very helpful tabular statement of data regarding the issuance of C. P. A. certificates by the several states, and wishes to express its hearty appreciation of the importance of the work which this committee is undertaking. A certified public accountant certificate should mean practically the same thing in all parts of the United States. So long as the standards of some states are low so that untrained and unworthy men obtain the certificate, the public, which is not in a position to discriminate, will have little respect for the letters C. P. A., regardless of the state from which the holder obtained his certificate. Fortunately this fact is well understood by the best practicing accountants in all the states and it is reasonable to hope that in the not-far-distant future the requirements for the certificate will everywhere be practically the same.
Examinations and Their Bearing on National Efficiency

The following passages from *The Incorporated Accountants' Journal* for March, summarize a recent lecture by P. J. Hartog, M.A., B.Sc., a well-known English authority on commercial education, and give the views of some of the English accountants:

"Mr. Hartog showed that an investigation of examination tests would reveal that they may be classified into (1) 'Knowledge or Memory Tests,' which test the power of restating facts and arguments, and, may we add, principles—e. g., 'Under what circumstances may an agent delegate his authority to a subagent, and state the principle of law involved?' and (2) 'Capacity Tests' which call forth candidates' powers of doing something and of applying to particular problems the facts and principles which should have been assimilated in the course of preparation—e. g., 'From the following particulars draw up trading and profit and loss accounts and balance-sheet.'

"It will be readily conceded that accountancy in its more technical aspect is concerned with the application of certain facts and more or less well defined principles to the circumstances of business life. For instance, the accountant has often to advise a client in regard to his accounts—what shall or shall not be done in regard thereto or stated therein, either because the law says that certain things shall or shall not be done or stated therein, or because, having regard to certain recognized principles, it is not expedient that they should be; and he would be a poor accountant who is not well versed in those facts and principles which are dealt with in the examination by way of knowledge or memory tests. We do not, for one moment, presume that an accountancy examinee is infallible and does not, like other students, forget at least something of what he has 'got up' for his examinations, nor do we overlook the fact (as Mr. Hartog reminds us) that the number of books of reference nowadays is legion; but despite the probability that candidates will forget something, perhaps a great deal, of what they have learned, there can be no doubt that during preparation they have not only assimilated important facts and principles, but have found out where to look for information and how to deal with it—faculties which cannot be regarded as other than important.

"Turning to the question of capacity tests, we may say that theoretically the ideal accountancy examination should be a perfect microcosm of an accountant's practice. Like most ideals, it is impossible of realization—candidates cannot be sent to audit a set of books, to liquidate a company, or to wind up a bankrupt's estate—but, nevertheless, this ideal is not lost sight of, as the questions are largely based upon practice and, so far as the accountancy portion of the examinations is concerned, the papers are set by practicing accountants. Further, an accountant's practice is more efficient and remunerative when, *ceteris paribus*, work is done quickly than when it is done slowly, and therefore the tests which the examiners put to candidates to do certain work in a definite time are, from the practical point of view, of considerable value.
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"There does not, therefore, seem to be anything in these two tests which is inconsistent with the practice and profession of an accountant. At the same time we do not desire to minimize the effect of what Mr. Hartog terms 'the hygiene of the examination room,' which prevents candidates from being in a normal condition of mind and body when under examination influence. This influence exerts itself in varying degrees with different people, but it is not unreasonable to assume that the better prepared and trained a candidate is (and by this we do not mean 'crammed') the less power will it have over him when he enters the examination room. The extent of its effect is largely determined by personal temperament, but the lack of authoritative information on the point makes it impossible to assign anything like definiteness to its working; hence we cannot form an accurate opinion in regard thereto. This much, however, is certain, that candidates not infrequently present themselves at the examination room only to find that their minds are completely blank, or to break down from physical and nervous exhaustion before their task is completed. On the other hand, it is conceivable that the excitement and pressure of the examination braces others up so that the best that is in them is reflected in the answers which they give. While on this matter, it might be mentioned that even the final examination lasts only three days, and it cannot be claimed that the physical strain on candidates is excessive, having regard to the fact that other advanced examinations often extend over six days.

"Reviewing the matter, as a whole, it can be fairly claimed that professional accountants' examinations are not indeterminate, and that the object in view is achieved, in large measure at all events. This is contrary to the general statement laid down by Mr. Hartog, but in fairness to him it should be pointed out that he did not treat his subject dogmatically, and emphasized the importance of dealing with each case on its own particular merits. And the distinctive merit of accountancy examinations is this, that they only constitute one of the elements in the scheme prescribed for aspirants to recognized professional status. The by-laws make it a condition precedent that all candidates for examination must have practical training and experience in professional accountancy, and although it cannot be confidently asserted that because a man passes his examinations it necessarily follows he will make a successful accountant, yet experience in this matter gives good ground for believing that in nine cases out of ten the man who appears in the honors list eventually occupies a position in the accountancy world consistent with his academic qualifications.

"There is now left for us to consider what may be termed the 'moral' effect of this system of training and examination to which the accountant must conform. Has it not taught him the value of application and the power of mental discipline, that accountancy is a learned as well as a practical profession, and that knowledge is an organism which must continue to grow and cannot remain stationary? The world is, perhaps, a little too ready to undervalue the power of application and to overestimate the value of pure ability divorced from perseverance; and the picture of the genius, who passes his examinations with comparative ease, being
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outstripped in after life by his less gifted but more diligent brother is no mere effort of the imagination. The latter has appreciated all that his examinations have had to teach—that his work has only just commenced, and that his application must be never ceasing to keep his knowledge both alive and up-to-date. The profession has not failed to realize that the accountant of the future must do more than conform to that minimum standard which has been laid down in the way of training and study, and the existence of Student Societies and Accountancy Journals bears testimony to the necessity of disseminating professional knowledge. There is, however, we fear, a disposition among the younger generation of accountants to show less of that faculty of application and enthusiasm than would be wished for, and for that reason we venture to urge more active support to the Student and District Societies to be found in our large commercial centers.

"Like most things, examinations change their shape by a gradual process of evolution, and signs are not wanting that the tendency of professional accountants' examinations is in the direction of increasing the general culture of the candidates, as far as it is possible for examinations to do so. An illustration of this may be found in the recent action taken by the council of the Society of Incorporated Accountants and Auditors in redrafting the syllabus of the preliminary examination and revising and codifying the by-laws in regard to exemption therefrom.

"After considering what Mr. Hartog has urged, we see nothing to lead those responsible for the organization of the profession to alter the present policy of requiring professional training and experience with the passing of sound examination tests as the qualifications of those who would join its ranks; nor, having regard to the state of knowledge at the present time upon this important matter, is there anything to commend a fundamental alteration in the existing scheme."

International Course of Lectures on Commerce

From England comes the news that a course of lectures on commerce is being organized by the International Society for Promoting Commercial Education, and will be delivered in London, in July, 1911. They are intended primarily for commercial men and teachers of economics from continental schools and universities, in order that they may become acquainted with the history and practical working of English commerce and industry.

Courses of lectures of similar nature have been held in various continental countries: in Germany in 1908, in France in 1909, and in Austria in 1910. It would seem logical that the United States should provide a course of this kind in the near future, since the results of the courses thus far are stated to have been extremely beneficial.

The English course is in the hands of an influential committee, and it is expected that the course will be of a high order of excellence. Full particulars of it may be obtained from Mr. Ed. Cleveland-Stevens, London School of Economics and Political Science, Clare Market, London, W.C.
BOOK DEPARTMENT

EDITED BY LEE GALLOWAY, PH.D.

ANALYSIS EARNINGS, UNITED STATES STEEL CORPORATION, by C. W. Taintor, 35 Congress Street, Boston, 1909. Price, $3.00.

The problem during the nineteenth century for capital investment was to find means for its employment. The organization of industry upon the principle of mass production and the organization of investment upon the principle of limited liability solved the problem so far as the outlet for capital was concerned, but it leaves the question of security for the investment still unsolved. The factors tending to complicate this part of the problem have increased with the growth of modern industry and business expansion, until the question for the twentieth century capitalist is not, How can I invest, but where can I invest with safety? The immensity of present industrial units makes it impossible for the average investor to analyze the productive and market conditions as a basis for determining valuations or the earning power from an investment and not a speculative point of view. Even to make a careful study of the financial reports of large companies is beyond most investors—meager and unsatisfactory as most of the reports are.

However, this source of information seems to be chiefly the one relied upon. Investors depend upon the fact that business success in the long run is possible only if honesty supplements business capacity. Thus a corporation is judged to be in the hands of scrupulous and capable men, if over a series of years the profits do not fluctuate except as they are explained in the light of other financial factors; such as total quarterly earnings, special sinking funds, depreciation and reserve funds, interest on sinking funds, preferred stock dividends, common stock dividends, appropriations for new property, construction and discharge of capital obligations, balance of surplus for the dividend period, etc.

But to gather all this information from the published reports and to arrange it in a form for intelligent comparison needs training in the handling of financial statistics. When this is done scientifically it is surprising to discover how much information may be put upon two sheets of paper. This is the size of Mr. Taintor's report, which he sells for $3, but it is well worth the price to the man who wishes to get a clear conception of the standing of the United States Steel Corporation securities as an investment proposition. By the use of the graphic method he has been able to show all those important relations which should help the prospective investor in forming an opinion as to whether financial conservatism has placed the corporation's bonds and preferred stock in the investment class, and whether the $508,000,000 of common stock can establish a good dividend record and find a ready market at par, or even higher than the preferred stock.

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THE ACCOUNTANTS' MANUAL. Published by Gee & Company, London, E. C. Price, 2s. 9d.

This manual is one of a continued series containing questions and answers of the examinations given by The Institute of Chartered Accountants, England. The questions included cover the Preliminary, Intermediate, and Final Examinations for 1910. The answers for the Preliminary set are by F. T. Skinner, M.A. (Oxon.)

A study of the preliminary examinations is interesting to an American, since it offers a comparison of requirements imposed by the two countries upon candidates for the C. P. A. degree. Until recently the English standards have been higher than American.

The requirements now demanded by the State Board of Regents of New York show a tendency to raise the American standard. Under the new requirements, 1911 candidates for the C. P. A. degree must show that they have passed their preliminary examination in Third Year English, Elementary Algebra, Plane Geometry, the elements of two sciences (Physics, Chemistry or Biology). The second year of a foreign language and United States history and civics. On the basis of the Regents allotment of credit for their subjects the above amounts to forty-five counts. Besides these the candidate is permitted to select studies from a large list of subjects, which upon passing a satisfactory examination, entitles him to fifteen counts additional. A total of sixty counts is necessary to obtain entrance to the C. P. A. examinations.

So far as the examination tests are concerned the New York requirements are now more difficult than the English. The latter still demands an examination in Latin. However, this is not more difficult than the test demanded of American students who must pass a test in the second year of a foreign language. The English examinations do not include a science, but they do set a stiff examination in Arithmetic.

The answers in the Manual are carefully prepared, and aside from their being an aid to the student for examination purposes, they should prove to be a valuable source of practical information for the general accountant.


The author is a teacher in the State Normal School at Fitchburg, Mass., and hence has the point of view of the teacher. Nevertheless the business world should not be indifferent to the movement on the part of educators to furnish the coming business men with a comprehensive knowledge of industry and industrial conditions. Probably ninety per cent of the pupils in our schools to-day will enter some form of business. It is, therefore, essential that due importance be given to a subject which deals with the basic industries of our nation. How much easier it would be for business men to deal with causes and effects when widespread industrial depression threatens if they were trained in their earlier years to understand the underlying physical facts upon which our industries are built.
The Journal of Accountancy


The 1911 editions of these well-known diaries, consisting of seven volumes, ranging in price from one shilling sixpence to eight shillings, contain a complete directory of accountants corrected to the latest possible date. No. 4 is one of this set. It contains over 600 pages, half of which are ruled to suit the purposes of an accountants’ diary. The remaining pages are given up to material, especially important to the practising accountant, who needs a great deal of information ready at hand. About fifty pages are given over to miscellaneous tables of weights and measures, short methods of computation, and other general almanacic information. Another twenty-five pages, although general in character, is of special interest to accountants—tables showing the steps taken in a company liquidation, the value of a lease, annuity, and discount tables, etc., the names and addresses of all the London banks, bankruptcy officials, and county courts, with bankruptcy jurisdiction, etc., etc. Then follow 100 pages of statutes and rules relating to building societies, companies, trustees in bankruptcy and under deeds of arrangement and the audit of accounts of various bodies, such as gas and water-works companies, municipalities, dock companies, etc.

This is, of course, all in compliance with English law and practice, but if this should do nothing more for the American reader, it might prove very suggestive to some enterprising publisher who might get out a book along similar lines applicable to our conditions.

The directory, however, which takes up another 100 pages would be valuable to any accountant anywhere in the United States. It is remarkably accurate considering the fact that it covers all the principal commercial centers in the world and gives the streets and numbers of accounting firms’ addresses.

Some interesting comparisons might be made from these pages showing the progress of the profession in the various countries of the world, so far as numbers and certification for degrees are concerned. For example, London has nearly five times as many accounts as New York City, while Glasgow has just four times as many as Chicago.


Mr. Cutforth has attempted to meet a demand which a large and growing body of accountant students has created—i. e., a demand for accounting books which are authoritative yet at a price much cheaper than is usually the case with highly technical books. The author has not attempted to compete with either Mr. Dicksee or Mr. Pixley in the size of his book, but by eliminating many of the acts of parliament, law reports, etc., other matter not of vital interest to auditors, and by great conciseness of form he has given us a work of convenient size and a good quiz book for students. A large portion of the book is given up to the
consideration of the duties of auditors. The duties are grouped under the heads of the various items usually found in the Balance Sheets, etc., Profit and Loss Accounts, and also under the different classes of concerns of special interest to auditors. For example, the item of Wages under Profit and Loss is given thus: Under the Balance Sheet items appear

"Wages"

1. Ascertain, first of all, whether a good system of paying wages is in force—that is to say, one which minimizes, as far as possible, the chance of fraud. Some points in a good system would be:

(a) That the clerks making up the Wages Sheets have nothing to do with the actual payment of the money.

(b) That the foremen furnishing details of time spent or piecework done by each workman have nothing to do with making the additions or additions of the Wages Sheets of the payment of the money.

(c) That each workman must attend personally to receive his wages, unless his representative holds an order signed by the manager or other responsible person.

(d) That the wages must be paid in the presence of the manager or other responsible official.

2. Checks the additions of the Wages Sheets, also a few extensions here and there.

3. See that the weekly totals are each signed for as correct by those responsible.

4. Vouch the Cash Book payments with the totals.

5. Compare weekly totals with each other, satisfying yourself that good reasons exist for any large fluctuations.

6. Look through the Wages Book and see that no large sums appear to have been paid to any one man."

Chapter IX contains a number of questions and answers. This section of the book would prove a great help to students, since they can concentrate their efforts upon essentials that are likely to be brought out at examination time. Even the practical accountant will find much here that will be stimulating. Many principles effecting an audit are brought out more clearly by this method than could be done in any other way. By presenting a problem, followed by its solution, the practical business man catches the essentials of a principle with greater ease than by presenting the same idea in an abstract form.

Another aid that the student will highly appreciate is the inclusion of a number of page references to Dicksee’s and Pixley’s books on Auditing, along with the chief topics given in the index of Mr. Cutforth’s book. Thus, this book can be used as a syllabus, and where elucidation is needed on any important topic, these standard authorities will supply it.
Legal Department

EDITED BY CHARLES W. GERSTENBERG, PH.B., LL.B.

The Legal Department of the Journal of Accountancy is prepared to render a genuine service to its subscribers and readers, by undertaking to answer legal questions submitted to it. These questions, while they may be suggested by the problems that arise to the practice of our correspondents or by the more theoretical requirements of examination boards, should always be so stated as to call for single propositions of law. Whenever the Department receives a query the correct answer to which may vary with many possible but unstated circumstances the correspondents will be asked to give the details or advised to consult local counsel. Reasonably prompt replies by the Department will be made by personal communication or through the columns of the Journal. Address all communications to the Journal of Accountancy, Legal Department, 32 Waverly Place, New York City.

TAX ON TRANSFERS OF STOCK

COURT OF CLAIMS—STATE OF NEW YORK

February, 1911.

UNITED STATES RADIATOR CORPORATION vs. THE STATE OF NEW YORK

MURRAY, J.—This controversy is submitted upon an agreed statement of facts. The claimant seeks to recover the sum of $4,043.16, which amount it paid to the State for the purchase of stamps to be affixed to certain trustees’ certificates of stock on the transfer of them to the stockholders of corporations.

The United States Radiator Corporation was duly incorporated under the laws of the State of New York on or about May 19, 1910, and then became and still is a domestic corporation, having its office and principal place of business in the City of Dunkirk, N. Y.

Subsequent to its incorporation this claimant purchased certain properties and the assets of four other corporations, owing them or setting apart for these corporations 52,100 shares of its capital stock of the par value of $100 per share, amounting to $5,210,000, which were called vendors’ shares. Each of the said vendor corporations made and entered into a voting trust agreement with the Fidelity Trust Company of Buffalo, N. Y., for the term of five years, during which time the Trust Company was to hold the above-mentioned stock as voting trustee and vote the same as directed by the subscribers to the trust agreement, and thereupon and at the request of the vendor corporations this claimant issued these shares of stock to the Fidelity Trust Company. Afterwards the said vendor corporations, upon the unanimous consent of the stockholders of each—they having no creditors whose rights were affected thereby—requested the Trust Company to issue its trust certificates for said stock to the individual stockholders of each vendor corporation in the proportionate amounts of their several holdings. This the Trust Company did and split up the 52,100 shares of said stock so standing in its name and issued to each individual stockholder of each vendor corporation its trust certificate representing the said individual’s proportionate share of the total stock issued by the claimant to the vendor corporation of which said individual was a stockholder.

Under the contracts of sale the United States Radiator Corporation assumed the obligation of paying for all stamps which might be required under the Stock Transfer Stamp Law of this State, and when the request was made that the Trust Company should issue the trust certificates to the stockholders in the corporations as above stated the matter was submitted to the Comptroller of the State, and his opinion was asked whether the trust certificates thus issued to the individual stockholders of the vendor corporations should be stamped as though the issuance of
Legal Department

said certificates was a sale or transfer of shares of capital stock, and if the certificates representing the proportionate shares of said stock should be stamped according to the provisions of the said Law. The Comptroller expressed the opinion and held that they should be so stamped. The claimant thereunder purchased the necessary stamps, amounting to $1,043.16, and they were affixed to and canceled upon the said certificates. The claimant also protested, made an application for refund and took the requisite steps provided by the statute for the recovery of the amount so paid.

The question submitted in this case is: Were these stock certificates, issued by the trustee to the individual holders of stock in the vendor corporations, taxable under the provisions of the Stock Transfer Tax Law?

1. The court must first determine whether it has jurisdiction to hear and adjudicate this controversy upon the agreed statement of facts submitted without any claim having been previously filed.

Section 62 of the Executive Law, referring to the powers of the attorney general, provides:

"He may, in behalf of the State, agree upon a case containing a statement of the facts and submit a controversy for decision to a court of record which would have jurisdiction of an action brought in the said court pursuant to the provisions of article 2 of chapter 2 of title 2 of the Code of Civil Procedure."

Section 1279 of the Code provides:

"The parties to a question in difference which might be the subject of an action** may agree upon a case containing a statement of the facts upon which the controversy depends, and may present a written submission thereof to a court of record which would have jurisdiction of an action brought for the same cause."

All the facts required under the statute to give jurisdiction exist in this case.

In the case of Flower vs. State (65 Misc., 145) this court held that it had no jurisdiction under the law as then existing of an action to recover stock transfer taxes erroneously collected, and that the decision of the State Comptroller in reference thereto was without review by this court. Since that decision, chapter 186 of the laws of 1910 was passed, amending the Tax Law in relation to refund of taxes on transfers of stock, and that chapter, so far as applicable to this case, provides: "If the Comptroller rejects a claim or any part thereof, the claimant may file a claim for the recovery of such sum as the Comptroller shall have refused to allow with the Court of Claims, which shall constitute a private claim against the State and shall be subject to all the provisions of law governing such claims, except that all claims so presented shall be filed with the Court of Claims within ninety days from the date on which such claim shall be rejected by the Comptroller."

This enactment gives this court jurisdiction of the subject matter of the claim, requires an examination of its merits and leads to a determination of the question.

2. Was the imposition of the tax on the issuance, transfer, and delivery of these certificates valid?

The claimant in substance contends that it was simply a transfer from the vendor corporations to their individual stockholders of their beneficial interest in the corporation proportionate to the amount of stock they owned in the vendor corporation, and that such transfer is not taxable under section 270 of this Tax Law.

This section provides:
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"There is hereby imposed and there shall immediately accrue and be collected a tax on all sales or deliveries or transfers of shares or certificates of stock in any domestic or foreign corporation whether made upon or shown by the books of the corporation or by any delivery, or by any paper or agreement of transfer or sale, whether entitling the holder in any manner to the benefit of such stock or to secure the future payment of money or the future transfer of any stock."

Although this section has been held to be constitutional, yet it will be seen from a perusal that it does not expressly mention transfer of trustees' certificates, nor does it specifically exclude them. I have been referred to no case, nor has my research found any adjudication upon the applicability of this section to the specific facts of the case at bar. Therefore its scope and meaning must be construed, the intention of the Legislature ascertained, and finally a determination whether its provisions are relative and pertinent and cover the facts of such a case as were agreed to in the statement submitted in this controversy.

By the trust agreement the Fidelity Trust Company received the 52,100 shares for voting purposes, and when it divided these shares as mentioned it issued its trust certificates in proportionate amounts according to their individual holdings to the stockholders of the vendor corporations.

These trustees' certificates of stock represented new or additional holdings in another corporation which the receiving holders had not previously been members of. They were evidence of title of the stockholders to the new stock in the different corporation which they represented, and the possession of them was proof of the holders' rights to share in the dividends or profits of the vendee corporation. They were deliveries or transfers representing shares or certificates of stock in a domestic corporation. They were papers or agreements entitling the holder to the benefit of such stock or the future transfer of stock.

They gave the holder a beneficial interest in the corporation. They were delivered to him as evidence of being entitled to such benefits, and by him could be transferred to others.

When these certificates were delivered or transferred to the stockholders the beneficial interest which they represented passed to the stockholders, and the right to participate in the corporation and to share in its prosperity was conferred on him or to others to whom the certificates might be transferred. It is logical to conclude that they were "agreements or other evidence of transfer entitling the holder in any manner to the benefit of such stock or to secure the future payment of money or the future transfer of any stock."

The corporation and the stockholder are not one and the same. They are in law two separate entities. The stockholder may have diverse and antagonistic interest to the corporation. A stockholder may be a creditor of his own corporation, and may sue it and maintain actions against it. The issuance of stock to stockholders of a corporation may therefore be regarded the same as the delivery of stock thereof to a stranger on purchase.

By the same analogy it should be reasoned that where a trustee of a corporation issues its certificates of stock to the stockholder of a company which the corporation has purchased, and transfers these certificates to holders, and they entitle the holders to participate in the benefits represented by them, securing the future payment of money, dividends or profits, or the future transfer of any stock, that it constitutes such a delivery or transfer of shares or certificates of stock as entitles the State to impose the tax specified thereon.

The trustees' certificate certifies that the holder is the owner of so
Legal Department

many shares of the capital stock of the United States Radiator Corporation, and further provides that "subject to said agreement this certificate is transferable only on the books of the said voting trustee by the owner thereof in person or by its duly authorized attorney upon the surrender of this certificate properly indorsed."

"As and when dividends upon the stock represented hereby are received by the voting trustee it will pay over the same to the above named holder thereof. At the termination of said agreement the holder hereof shall upon surrender of this certificate be entitled to receive a certificate or certificates for said shares of capital stock."

This certificate surely contains all the elements of taxability as provided in the statute.

It designates the holder as the owner of so many shares of stock as therein mentioned. It gives the holder a beneficial interest in the stock and provides for its transfer. It is a memorandum of the sale, or delivery, or transfer of the sale of stock. It is an agreement or paper entitling the holder to the benefit of such stock. It secures the future payment of money to the holder and provides for the future transfer to the holder of the stock therein mentioned.

The question if the State collects this tax now and in the future should seek to collect from the same holder a tax on the final issuance of the stock, whether it could do so or not, is left for discussion. It is debatable whether the State could collect the tax as herein mentioned or should wait until the final issuance of the stock as provided in the agreement. I have held under the law, as above stated, for it is the duty of the courts to interpret a statute according to the intendment and purpose of the Legislature. To my mind it is evident the Legislature intended to cover such a transaction as this. To hold otherwise would afford a simple and easy method for the evasion or circumvention of the law, and it would open the door for subterfuge and deceit.

I am of the opinion that the claim should be dismissed, and that judgment should be given for the State.

Commercial Teachers’ Convention

The fourteenth annual meeting of the Eastern Commercial Teachers' Association will be held in Bridgeport, Conn., April 13, 14 and 15, 1911. Mr. John R. Wildman, M.C.S., C.P.A., instructor in accounting in the New York University School of Commerce Accounts and Finance, will speak on the subject of expert accounting.

Announcements

S. R. Hopkins, C.P.A., has changed his address from Mishawaka, Ind., to 618 New York Life Building, Chicago.

John F. Foster, C.P.A., has announced that he has removed his office from the Pacific Building to 413-415 California Street, between Sansome and Montgomery streets, San Francisco, Cal.

Alphonse Sutter, C.P.A., has announced that he is now located at 815 Nevada Bank Building, 14 Montgomery Street, San Francisco, Cal.
C. P. A. Question Department

Conducted by Leo Greendlinger, M.C.S., C.P.A.

Criticism and exchange of ideas will clear many a doubt and at the same time improve shortcomings. To solve, compare and criticize C. P. A. problems and thereby to aid in bringing about a uniform American standard for C. P. A. examinations, is the object of this department. With the aid of suggestions and criticism from the professional brethren, it can undoubtedly be achieved. Inquiries will be cheerfully answered.

In order to live up to the heading of this department, it will be useful to contrast as well as compare a few papers given by various state boards of accountancy at recent examinations for the C. P. A. degree.

The following are representative problems of the second Massachusetts examination, held in June, 1910.

Monday, June 27, 1910—9 A.M. to 1:30 P.M.

Theory of Accounts

Answer questions 1, 2 and 3, and seven others, but no more. Do not repeat questions, but write answers only, designated by number stated in question paper.

1. Trace the various operations in a well regulated office from the time an order is given for the purchase of material until such material is paid for, to protect the company from any possible loss in the transaction.

2. In what ways may a bookkeeper, who is also the cashier, conceal thefts; his books are kept by double entry and apparently are correct?

3. Describe the theory of double entry bookkeeping and state its advantages.

4. Discuss the different methods of dealing with, first Repairs, and second Replacements, in connection with (a) a concern that writes off annually sufficient depreciation to cover the life of the machinery, and (b) a concern where no depreciation is written off, and where it is claimed the machinery is kept as good as new.

Can you name some other reason why depreciation should be considered, in respect to machinery, other than that of wear and tear?

5. On what basis should the following assets be valued in the preparation of a balance sheet: (a) Manufactured goods, (b) partially manufactured goods, (c) raw material, (d) accounts receivable, (e) stocks, bonds, and other investments, (f) notes receivable?

6. Explain how you would install a system of bookkeeping arranged so that only the proprietor, officers, and auditor shall be cognizant of its financial condition and annual profits or losses.

7. Purchases, sales, returns, and allowances are frequently posted to one account called Merchandise. Describe the limitations of an account so kept, and suggest, with your reasons therefor, an improved method of recording these transactions.

8. State your understanding of the difference between Gross Profit and Net Profit.

9. What is usually included in the account "organization expenses" in the books of the company? How should this account be treated? Give reasons.

10. In a statement of the earnings of a business to be sold on the basis of its earning capacity, how should the question of interest paid on accounts payable, on notes payable, and on loans be treated?


C. P. A. Question Department

11. If any money has been received by a company on account of work in process, how should such repairs be treated?
12. Define (a) funded debt, (b) floating indebtedness, (c) fixed charges. May interest on floating debt properly be considered a fixed charge?
13. What is a contingent liability? For what purpose and in what form should such liabilities appear in a statement of financial condition?
14. What is a sinking fund?
15. What disposition should be made, by a trustee, of an amount received by him for the sale of the "rights" to subscribe to stock? Give reasons.

Monday, June 27, 1910—9 A.M. to 1:30 P.M.

Commercial Law

Answer questions 16, 17 and four others, but no more. Do not repeat questions, but write answers only, designated by number stated in question paper.

16. (a) A and B are partners. A issues notes in the firm's name without B's knowledge and pockets the proceeds. Is the firm liable? If so, why?
   (b) A firm owes $100,000 and has assets of $50,000. A owes $40,000 and has $18,000, B owes $2,000 and has $30,000. What are the rights of the firm creditors and the individual creditors, and how should the assets be distributed and why?

17. When is a merchant insolvent under the Bankruptcy Act? What constitutes an act of bankruptcy?
18. Explain the taxation in Massachusetts of (a) a foreign corporation, (b) a domestic corporation, (c) a firm,
   (i) By whom taxed, method, and rate.
   (2) Where they have factories in different towns within the state.
   (3) Where they have factories, some in and some outside the state.
   (4) Remedies for overtaxation.
19. Define General Partnership and Special Partnership.
20. (a) In organizing how should the capital stock of a Massachusetts corporation be paid?
   (b) A Massachusetts corporation wishes to dissolve. How is it done?

22. Does a dividend in stock, declared before a testator's death but not payable till after his death, become a part of his estate or does it belong to the life tenant as income?
23. State the difference between a sale and a consignment.
24. Define the following:
   (a) Contract.
   (b) Bill of exchange.
   (c) Promissory note; state essential of same.
   (d) Chattel mortgage.
25. What constitutes an insurable interest in property?

Monday, June 27, 1910—2:30 P.M. to 6 P.M.

Auditing

Answer questions 26, 27, 28, and seven others, but no more. Do not repeat question, but write answers only, designated by number stated in question paper.

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26. What is an auditor? What are his duties and responsibilities? What are the objects to be attained by an audit?

27. Describe the plan of audit of the books of a concern other than a bank, with which you are personally familiar.

28. Describe the steps necessary to make a complete audit of a savings bank.

29. How may the correctness of the following items in a balance sheet be determined: (a) Accounts receivable, (b) securities, (c) inventory of finished stock, (d) inventory of raw materials, (e) bank balances, (f) accounts payable, (g) notes payable?

30. In preparing the balance sheet of a business at the close of a year, how should you treat each of the following items: (a) Bad and doubtful debts, (b) premiums for fire insurance unexpired, (c) interest paid in advance on notes payable discounted, (d) discount on accounts receivable, (e) discount on accounts payable, (f) depreciation of plant?

31. Describe the various steps to be taken in auditing the accounts of an executor for the first year after the death of the testator.

32. Describe the steps necessary to make a complete audit of a Trust Company.

33. What measures should be taken by an auditor to satisfy himself that all liabilities had been brought into the balance sheet?

34. A firm having several branches maintains an account with each branch in the Ledger and charges to such account all goods sent to the agents for stock. When stock is taken the balance of each branch account is treated as ordinary Accounts Receivable and is included in the General Debts owing to the firm. If you see any objections to this method, state them, and say how you would deal with the accounts.

35. State generally your views as to what constitutes capital expenditure and expenditure properly chargeable against revenue. Under what circumstances would an auditor be justified in refusing his certificate of audit?

36. In auditing the accounts at the conclusion of the first fiscal year of a corporation formed to acquire an established business what documents and records should be examined in addition to the ordinary books and subjects of an audit?

37. State what means should be adopted to verify (a) cash sales, (b) discounts allowed, (c) discounts received, (d) sold goods returned, (e) allowances on sales.

38. A manufacturing corporation desires a certificate of its average annual profits for three years; after charging up all costs, expenses and depreciation, and an allowance for bad debts, it is found that the profits for the first year were $62,000.00, for the second year $64,000.00 plus $10,500.00 profit on sale of investments, and for the third year $72,000.00 plus $8,400.00 profit on the sale of real estate. How would you write your certificate?

39. What is the duty of the accountant who undertakes to examine a going business for the purpose of issuing a certificate showing the net earnings of the business for the preceding five years to (a) the owners, (b) those investing money therein on the faith of the report?

40. What safeguards in accounting would you suggest to a client to prevent loss of stock by theft?

Wednesday, June 29, 1910—9 A.M. to 12 M.

PRACTICAL ACCOUNTING

PART I

Answer question 41, and one other, but no more. Do not repeat questions, but write answers only, designated by number stated in question paper.
C. P. A. Question Department

41. On December 1, 1907, the following particulars are furnished of the position of John Mapleton, insolvent: Factory equipment cost, $15,-
000.00; estimated to realize, $10,000.00. Stock of finished goods, $19,000.00;
estimated worth, $7,500.00. Material and supplies, $2,500.00; estimated
worth, $1,000.00. Furniture and fixtures, $900.00; estimated worth, $200.00.
Investments valued at $25,275.00, of which $15,000.00 is held by bankers
as security for a loan of $12,000.00. Accounts receivable $6,250.00, of
which $2,500.00 are good; $1,250.00 bad, and $2,500.00 estimated to realize
$1,500.00. Cash, $575.00, of which $25.00 represents petty expense items
not charged up, and $500.00 an I. O. U. of a former employee which is
worthless. Accounts payable, $28,500.00. Notes payable, $25,000.00, of
which $12,000.00 is due bankers. Wages due, $500.00. Rents due and
past due, $1,000.00. Capital on January 1, 1907, as shown by the books,
$15,000.00. Loss by sale of investment May 1, 1907, $5,000.00. Loss in
trading account January 1, 1907 to December 1, 1907, $3,500.00. Drawings
charged personal account of John Mapleton, $1,000.00. Make up a state-
ment of affairs and a Deficiency Account as at December 1, 1907.

42. The fiscal year of a manufacturing company ends June 30, 1908,
and the bookkeeper presents a statement to the directors made up in the
following form:

| Gross sales                      | $285,000.00 |
| Increase of inventory           | 15,000.00   |
| Cost of Sales                   |             |
| Operating expenses, materials   | $237,000.00 |
| Plant expense                   | 12,000.00   |
| Freight on returned goods       | 600.00      |
| Sundry purchases, finished goods| 10,400.00   |
| Other Income                    |             |
| Miscellaneous earnings          | $1,500.00   |
| Profit on contracts             | 6,500.00    |
| Discount on purchases           | 500.00      |
| Loss                            |             |
| Discount on sales               | $2,875.00   |
| Rebates and allowances          | 1,125.00    |
|                                  | $4,000.00   |
|                                  | $24,500.00  |

You are required to make up a Profit and Loss statement in regular form,
using such of the above figures as may be necessary together with these
following: Inventory, June 30, 1907. Material, $115,000.00. Supplies, $35,-
000.00. Finished goods, $45,000.00—Inventory, June 30, 1908. Material,
$140,000.00. Supplies, $10,000.00. Finished goods, $60,000.00. Material
used in factory during the year, $75,000.00. Wages, $122,500.00. Fuel,
$2,500.00. Repairs and renewals, $2,000.00. Other operating expenses,
$85,000.00, which includes $25,000.00 supplies used.

43. A firm of four partners agree to sell their business to a corpora-
tion. Their assets and liabilities were as follows: No. 1—Capital, $145,-
500.00; No. 2—Capital, $123,500.00; No. 3—Capital, $133,000.00; No. 4—
Capital, $152,330.00; Building, $125,000.00; Machinery, fixtures, etc., $38,-
335.00; Stock, $150,940.00; Accounts receivable, $328,680.00; Bills receiv-
bale, $37,005.00; Cash, $17,030.00; Horses and wagons, $1,230.00; Unex-
pired insurance, $175.00; Accounts payable, $124,065.00.

It was further agreed that the partners were to be paid for good will,
based on a year and a quarter purchase of the last three years' profits,
which were respectively $32,620.00, $37,450.00, and $30,650.00.

Prepare a Balance Sheet, bringing in the good will as an asset and dis-
tributing it among the four.
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Wednesday, June 29, 1910—1:30 P.M. to 4:30 P.M.

Practical Accounting

Part II

Answer question 44 and one other, but no more. Do not repeat questions, but write answers only, designated by number stated in question paper.

44. A branch office business was started at the first of the year, the head office advancing $5,000.00 cash. During the first year merchandise was shipped to branch, invoiced at $75,000.00.

An auditor checking up the business at the close of the year finds the following:

Merchandise sales were $60,000.00, with selling price of goods twenty per cent advance on invoice.

Proper vouchers were on file duly receipted for following payments:

- Rebates and allowances on damaged goods: $1,500.00
- Salaries and other expenses: $4,500.00
- Freights: $2,500.00
- The books also showed:
  - Remittances to head office: $35,000.00
  - Uncollected accounts: $15,000.00

The balance of the sales having been realized in cash, less rebates and allowances as noted.

The cash on hand and inventory of unsold goods, together with the foregoing records, properly account for everything.

Prepare statement, such as an auditor would make in reporting to the head office, balancing the business of the branch house.

45. Robert Adams and William Stevens are equal partners. On the night of July 3d, their stock and fixtures were destroyed by fire. A trial balance, which Adams had at his home, showed the following condition of the ledger at the close of business, June 30th:

<table>
<thead>
<tr>
<th></th>
<th>Robert Adams</th>
<th>William Stevens</th>
<th>Cash</th>
<th>Fixtures</th>
<th>Merchandise purchases</th>
<th>Merchandise sales</th>
<th>Notes receivable</th>
<th>Notes payable</th>
<th>Interest</th>
<th>Expense</th>
<th>Customers</th>
<th>Creditors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$600.00</td>
<td>$7,450.00</td>
<td>$600.00</td>
<td>$1,500.00</td>
<td>$32,600.00</td>
<td>$24,800.00</td>
<td>$1,000.00</td>
<td>$2,000.00</td>
<td>$120.00</td>
<td>$780.00</td>
<td>$4,500.00</td>
<td>$3,250.00</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>$45,009.00</td>
<td>$45,009.00</td>
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</tr>
</tbody>
</table>

The property is fully covered by insurance. The insurance company, for the purpose of estimating the value of the merchandise destroyed, has agreed to allow 35 per cent as the average gross gain on the sales and to pay 66⅔ per cent on the value of fixtures as shown by the ledger.

On the basis of this agreement, state the result of the business and the capital of each partner.

46. The capital of three partners—A, B, and C—in a manufacturing business, January 1, 1896, was $26,000.00, of which A owned one fifth, B two fifths, and C two fifths. On December 31, 1896, one year thereafter, the condition was found to be as follows:

- Real estate, $15,000.00; plant and machinery, $7,000.00; stock on hand, $2,000.00; book debts receivable, $6,000.00; cash in bank, $2,500.00; creditors' notes payable, $8,000.00.
C. P. A. Question Department

Partners' withdrawals—A (including interest) .... $1,500.00
“ “ “ C “ “ “ “ “ 2,000.00

After crediting up interest on capital at the rate of six per cent, show the net result for the year, and distribute the same, in proper proportions, to the partners' accounts.
Prepare individual partners' accounts, showing the condition of each at the end of the year.
The following are the problems and questions of the Illinois examination, held in December, 1910.

Wednesday, December 21, 1910—9.30 A.M. to 12.30 P.M.

Theory of Accounts

Seventy-five credits necessary to pass, out of a possible 100 credits.
Each complete answer will receive ten credits. Do not repeat questions on examination papers, but write answers only, designating the questions by number. The intelligence indicated by answers will be considered in marking the applicants, as well as the technical accuracy of such answers.
1. Irrespective of the independent audit by a certified public accountant, how would you endeavor to organize the financial arrangements and the system of bookkeeping of a large firm or corporation, so that there might be the best internal check possible?
2. Give an example of that portion of a Balance Sheet of a corporation, which deals with the Share and Debenture Capital Account. State and set out the same in the proper columns, assuming the following to be the position of the Company's Share and Debenture Capital:

Share capital, authorized. .................. $100,000.00
Share capital, issued or subscribed .......... 80,000.00
Share capital, called up .................... 60,000.00
Calls paid in advance ..................... 5,000.00
Calls in arrear ............................. 1,000.00
Debenture capital, authorized ............. 50,000.00
Debenture capital, issued or subscribed ... 40,000.00
Debenture capital, paid up ................. 35,000.00

3. An executor, on entering upon his duties, having asked you to give him instructions in writing how he should deal with and keep the accounts of his trust, specify your instructions in form of a letter.
4. A company, having $500,000.00 of Debentures, bearing five per cent interest, which have been in existence for some years, and which are repayable February 1, 1907, arranges to provide the necessary capital by the issue, at par, of $500,000.00 four per cent permanent Debenture Stock, the interest on which runs from January 1, 1907; the accounts of the company are made up to June 30, 1907. What, in your opinion, is the proper amount of Debenture Interest to be charged against the profits of the half year? Give the reasons upon which your opinion is based.
5. A firm is in the habit of supplying goods on the principle of sale or return, taking payments by installments covering principal and interest, the purchaser having the option to return the goods at any time, forfeiting the installments paid. How would you recommend that such conditional sales should be entered in the books of the selling firm, and how should the outstanding amounts be from time to time valued?
6. The calculation of the percentage of profits is sometimes based upon cost and sometimes upon selling price. Which do you regard as the more

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The Journal of Accountancy

correct method? and how, if required, would you readily arrive at the cost of goods sold? Give your reasons.

7. In a large manufacturing concern purchases of material and supplies pass through the storekeeper. What system of bookkeeping and check would you advise to safeguard and control the distribution of both? Fully explain the same.

8. In closing the books of a company at the fiscal period, what steps would you take to insure that all liabilities to date had been included?

9. In taking off a trial balance, a bookkeeper finds that his debit footings exceed the credit by $131.56, which he carries to a suspense account. Later, he discovers that a purchase amounting to $417.50 has been debited to a creditor as $192.54; that $312.50 for depreciation of furniture has not been posted to depreciation account; that $500.00 withdrawn by the principal has been charged against wages account; that a discount of $76.13 allowed to a customer has been credited to him as $71.13, and that the total of sales returned was footed $5.00 short. Give detailed entries showing how you would remedy these errors, and starting with the original difference prepare a supplemental trial balance showing whether the books balance or not.

10. A corporation's profits for the year ended December 31, 1908, amount to $457,000.00. The by-laws require a reserve equal to ten per cent of any dividend paid to the common stockholders, and any surplus remaining after such dividend has been paid is also to be applied to the reserve, until such dividend has been paid also to be applied to the reserve, until such reserve account amounts to $250,000.00. The reserve at December 31, 1907, was $156,000.00. The capital is $2,000,000.00—one half cumulative preference five per cent, and one half common, all fully paid. On December 31, 1908, the preferred dividend is two and one half years in arrear. On December 31, 1907, profit and loss account was in debit $202,000.00. Set out your treatment of the profit for 1908, and comment concisely on the position.

Friday, December 23, 1910—9:30 A.M. to 12:30 P.M.

Commercial Law

1. Name the necessary elements of a valid contract. What contracts under the law of Illinois are required to be in writing? What is the legal effect of attaching a seal to a contract?

2. Prepare a short form of partnership agreement for equal partners. Wherein does a partnership differ from a corporation?

3. What are the general obligations of a common carrier of goods? Of a carrier of persons? What is a bill of lading?

4. What is the Statute of Frauds?

5. How much of the capital stock of a corporation, organized under the laws of Illinois, must be paid in before a charter can be obtained? What are the obligations of a subscriber to the capital stock of a corporation organized under the laws of Illinois respecting payment for the stock subscribed for by him?

6. What is the lawful rate of interest in Illinois in the absence of a contract? To what rate may the parties contract?


State the difference between an administrator and an executor.

8. What is a limited partnership under the laws of the State of Illinois?
C. P. A. Question Department

9. What are the obligations of a bailee for hire?
10. Wherein does a mortgage differ from a trust deed?

Wednesday, December 21, 1910—1:30 p.m. to 4:30 p.m.

Auditing

Seventy-five credits necessary to pass, out of a possible one hundred credits.

Each complete answer will receive ten credits. Do not repeat questions on examination papers, but write answers only, designating the questions by number. The intelligence indicated by answers will be considered in marking the applicants, as well as the technical accuracy of such answers.

1. During the audit you are making of the accounts of a corporation, you become aware of a claim against the company which you think is likely to be enforced, but which the directors do not recognize, and for which they will make no reserve. What would you do in the circumstances?

2. State shortly the duties of an auditor of a corporation.

3. A corporation is established for working a patent of which ten years are unexpired, and for which a sum of money has been paid. How should the company deal with this asset, and what is the duty of the auditor in respect of it?

4. How should an incorporated coal company estimate the value of its colliery in its Balance Sheet from time to time, first as a Freehold, secondly as a Leasehold?

5. Write out a short Audit Certificate dealing with a few of the points which sometimes arise in an audit, and have to be specially dealt with by the auditor in his certificate.

6. In the case of an incorporated company making considerably more profit than usual in one year, owing to extensive purchases on a rising market, would you advise declaring a proportionately larger dividend, or what would be your recommendation? State your reasons.

7. In auditing the books of an importing and domestic wholesale wine and liquor dealer how would you assure yourself of the correctness of the inventory as to the bonded stock?

8. Beyond the mere detailed checking of purchase invoices to the ledger accounts with dealers, can you suggest any steps that might be taken which might be advisable with the view of the prevention of fraud?

9. A corporation invests its Reserves outside its business. On the audit of the accounts explain what steps you would take to verify the bull receipt of the investment income and the safe custody of the trust funds.

10. Upon the audit of the partnership accounts of a manufacturing business the following conditions are revealed:

(1) Sales toward the end of the period are unusually large.
(2) A large deposit in bank is made on the closing fiscal date, which amount is credited to the bank two weeks later.
(3) Machinery sold has been credited to merchandise sales.
(4) A loan to the firm has been credited by mutual consent to the capital account of one of the partners.
(5) Depreciation or discount from the value of a certain class of the inventory instead of being thirty per cent as in prior years is shown as ten per cent.

What would you deduce from these facts, and what would you feel called upon to do by way of extended inquiry or report in each of these instances?
The Journal of Accountancy

Thursday, December 22, 1910—9.30 A.M. to 12.30 P.M.

Practical Accounting

Part I

Seventy-five credits necessary to pass, out of a possible one hundred credits.

Each complete answer will receive ten credits. Do not repeat questions on examination papers, but write answers only, designating the questions by number. The intelligence indicated by answers will be considered in marking the applicants, as well as the technical accuracy of such answers.

1. Prepare a Trading and Profit and Loss Account from the following Trial Balance and data for the year, ended December 31, 1909:

The stock of stores and materials at the end of the year, December 31, 1909, was $8,500.00. The rent at the rate of $2,500.00 was paid up to September 30th. Bad debts amounting to $850.00 have to be written off. A provision of $1,250.00 has to be made to meet possible bad debts. Depreciation at the rate of five per cent per annum on the plant at January 1, 1909, has to be written off. The wages are paid up to December 27th; the wages from that date to December 31st amount to $175.00. Interest at five per cent per annum has to be passed on the amount of the partners' capital accounts at January 1, 1909. (No interest on partners' current accounts.) Profits to be divided equally between the partners. The necessary entries for division of profits and interest, etc., to be passed through the partners' current accounts. It is assumed that no further entries are required to be made to complete the accounts.

Johnson & White,

Trial Balance, December 31, 1909

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments</td>
<td>$2,410.00</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>$19,125.00</td>
</tr>
<tr>
<td>Stores and materials, January 1, 1909</td>
<td>2,120.00</td>
</tr>
<tr>
<td>Johnson's capital</td>
<td>2,910.00</td>
</tr>
<tr>
<td>White's capital</td>
<td>15,300.00</td>
</tr>
<tr>
<td>Purchases</td>
<td>24,225.00</td>
</tr>
<tr>
<td>Johnson's current account</td>
<td>2,310.00</td>
</tr>
<tr>
<td>White's current account</td>
<td>3,910.00</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>13,265.00</td>
</tr>
<tr>
<td>Wages</td>
<td>27,825.00</td>
</tr>
<tr>
<td>Rent</td>
<td>1,875.00</td>
</tr>
<tr>
<td>Dividends on investments</td>
<td>115.00</td>
</tr>
<tr>
<td>Plant, January 1, 1909</td>
<td>44,100.00</td>
</tr>
<tr>
<td>Bills payable</td>
<td>4,075.00</td>
</tr>
<tr>
<td>Bank</td>
<td>975.00</td>
</tr>
<tr>
<td>Office expenses and salaries</td>
<td>2,100.00</td>
</tr>
<tr>
<td>Installments received on account of work in  progress</td>
<td>14,355.00</td>
</tr>
<tr>
<td>Taxes</td>
<td>40.00</td>
</tr>
<tr>
<td>Bills receivable</td>
<td>3,970.00</td>
</tr>
<tr>
<td>Cash in office</td>
<td>50.00</td>
</tr>
<tr>
<td>Law and accountancy charges</td>
<td>255.00</td>
</tr>
<tr>
<td>Repairs</td>
<td>330.00</td>
</tr>
<tr>
<td>Work in progress, December 31, 1909</td>
<td>25,905.00</td>
</tr>
<tr>
<td>Bank charges</td>
<td>90.00</td>
</tr>
<tr>
<td>Sales</td>
<td>70,035.00</td>
</tr>
</tbody>
</table>

Total debit $154,480.00 Total credit $154,480.00


**C. P. A. Question Department**

2. Prepare a Balance Sheet and Partners' Current and Capital Accounts from the above trial balance.

3. Prepare a statement of the affairs of Messrs. Wilson & Company from the following figures:

Cash on hand, $50.00. Debtors' good, $2,500.00. Debtors' bad, $250.00. Debtors doubtful, $5,000.00, which are estimated to realize $3,750.00. Creditors unsecured, $13,000.00. Creditors partially secured, $6,000.00; estimated value of security, $3,500.00. Creditors fully secured, $9,500.00; estimated value of security, $12,000.00. Landlord, creditor for rent, $1,350.00; of which sum he is a preferred creditor for $1,200.00. Factory manager, creditor for salary, $750.00, of which sum he is a preferred creditor for $250.00. Liabilities on notes discounted, $3,250.00, all of which are expected to be duly met at maturity. Stock of merchandise cost $4,250.00; estimated to realize, $3,750.00. Interest in a lease of business premises estimated to be worth, $500.00. There is a liability in respect of a contract which the debtors cannot complete, owing to the failure, amount unknown, but estimated at $1,500.00. Bills receivable on hand, $375.00; estimated to produce, $100.00.

4. The following statements of account and balance sheets were presented to the members of a club in the two years mentioned. Abstract of receipts and expenditures for the years 1908 and 1909:

<table>
<thead>
<tr>
<th>Year ended Dec. 31, '08</th>
<th>Year ended Dec. 31, '09</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,000.00</td>
<td>$5,840.00</td>
</tr>
<tr>
<td>4,985.00</td>
<td>5,095.00</td>
</tr>
<tr>
<td>37,870.00</td>
<td>38,155.00</td>
</tr>
<tr>
<td>420.00</td>
<td>210.00</td>
</tr>
<tr>
<td>85,525.00</td>
<td>76,190.00</td>
</tr>
<tr>
<td>6,110.00</td>
<td>5,360.00</td>
</tr>
<tr>
<td>$138,910.00</td>
<td>$139,850.00</td>
</tr>
</tbody>
</table>

| By rents, taxes, etc.          | $13,765.00     | $14,055.00     |
| By interest                   | 9,385.00       | 9,095.00       |
| By purchases of provisions, wines, etc | 74,900.00     | 67,190.00     |
| By billiards, cards, cigars, etc | 2,315.00       | 2,000.00     |
| By salaries and wages         | 10,240.00      | 10,155.00      |
| By fuel, light, repairs, renewals; additions to furniture, etc. | 14,465.00     | 18,625.00     |
| By club debentures paid off.  | 2,000.00       | 2,000.00       |
| By balances at bank and in hand: |                          |
| 1908                        | $20,675.00     | $16,645.00     |
| 1909                        | $21,675.00     | $18,645.00     |

**Less:** Accounts outstanding, included in expenditure above...

<table>
<thead>
<tr>
<th>14,835.00</th>
<th>15,620.00</th>
<th>5,840.00</th>
<th>830.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>$138,910.00</td>
<td>$139,850.00</td>
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<td></td>
</tr>
</tbody>
</table>

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### The Journal of Accountancy

**Balance Sheet**

<table>
<thead>
<tr>
<th>Assets:</th>
<th>Year ended Dec. 31, '08</th>
<th>Year ended Dec. 31, '09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Club house, furniture, China, glass, etc...</td>
<td>$224,200.00</td>
<td>$224,200.00</td>
</tr>
<tr>
<td>Balance, Jan. 1,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1908</td>
<td>$30,000.00</td>
<td>$30,915.00</td>
</tr>
<tr>
<td>1909</td>
<td>4,350.00</td>
<td>4,750.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$34,350.00</strong></td>
<td><strong>$35,665.00</strong></td>
</tr>
<tr>
<td>Less: Depreciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1908</td>
<td>3,435.00</td>
<td>3,550.00</td>
</tr>
<tr>
<td>1909</td>
<td>5,115.00</td>
<td>4,875.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,435.00</strong></td>
<td><strong>4,875.00</strong></td>
</tr>
<tr>
<td>Stock of wines, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1908</td>
<td>275.00</td>
<td>375.00</td>
</tr>
<tr>
<td>1909</td>
<td>325.00</td>
<td>375.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>500.00</strong></td>
<td><strong>750.00</strong></td>
</tr>
<tr>
<td>Cash at bank and in hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1908</td>
<td>20,675.00</td>
<td>16,450.00</td>
</tr>
<tr>
<td>1909</td>
<td>35,665.00</td>
<td>30,915.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56,340.00</strong></td>
<td><strong>47,365.00</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities:</th>
<th>Year ended Dec. 31, '08</th>
<th>Year ended Dec. 31, '09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Club debentures</td>
<td>$219,000.00</td>
<td>$217,000.00</td>
</tr>
<tr>
<td>Subscriptions received in advance</td>
<td>420.00</td>
<td>210.00</td>
</tr>
<tr>
<td>Sundry creditors</td>
<td>14,835.00</td>
<td>15,620.00</td>
</tr>
<tr>
<td>Balance in favor of the club</td>
<td>46,925.00</td>
<td>45,185.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$281,180.00</strong></td>
<td><strong>$278,015.00</strong></td>
</tr>
</tbody>
</table>

State in what respect, as regards information or otherwise, you would consider the above Statements and Balance Sheets incorrect, and unsatisfactory to the members of the club.

5. Assuming the Assets and Liabilities stated on the above Balance Sheets to be true, and the analysis of the receipts and payments of the year 1909 to be accurate, state the Income and Expenditures of that year in such a way as to correctly show the actual results of the year's operations.

**Thursday, December 22, 1910—1.30 P.M. to 4.30 P.M.**

**Practical Accounting**

**Part II**

Seventy-five credits necessary to pass, out of a possible one hundred credits.

Each complete answer will receive ten credits. Do not repeat questions on examination papers, but write answers only, designating the questions by number. The intelligence indicated by answers will be considered in marking the applicants, as well as the technical accuracy of such answers.

6. A and B agree to dissolve partnership December 31, 1908. The stated Balance Sheet was as follows:

<table>
<thead>
<tr>
<th>Assets:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise inventory</td>
<td>$57,500.00</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>85,500.00</td>
</tr>
<tr>
<td>Bills receivable (discounted)</td>
<td>14,000.00</td>
</tr>
<tr>
<td>Good will</td>
<td>5,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$164,000.00</strong></td>
</tr>
</tbody>
</table>
C. P. A. Question Department

Liabilities:

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable</td>
<td>$30,000.00</td>
</tr>
<tr>
<td>Bank</td>
<td>2,500.00</td>
</tr>
<tr>
<td>Bills payable</td>
<td>11,500.00</td>
</tr>
<tr>
<td>Bills receivable (discounted)</td>
<td>14,000.00</td>
</tr>
<tr>
<td>A's capital account</td>
<td>53,500.00</td>
</tr>
<tr>
<td>B's capital account</td>
<td>17,500.00</td>
</tr>
<tr>
<td>Income account</td>
<td>15,000.00</td>
</tr>
<tr>
<td></td>
<td><strong>$164,000.00</strong></td>
</tr>
</tbody>
</table>

Profits are divisible, A 4/7, and B 3/7, five per cent being allowed on capital, and no interest charged on drawings, which were upon the basis of $2,500.00, each. A continues the business and assumes all liabilities. B opening up business elsewhere takes one fourth of the stock and agrees to leave in the business $2,500.00 as guarantee for one year against floating liability for bad debts and discounted merchandise notes, and to receive or pay any balance in cash, any amount received being derived from accounts due the firm.

Prepare A's balance sheet after dissolution expressive of the terms stated.

7. The Energy Manufacturing Company draws on its customer, Slopay & Company, at two months from date, January 1, 1910, for $5,000.00 and three days thereafter discounts the draft with the City National Bank at five per cent per annum, net.

At maturity S. & Co. confess they cannot meet the draft, but pay the E. Mfg. Co. $3,000.00 on account, and give an acceptance for a like period for the balance, upon condition that the E. Mfg. Co. retire the original draft, which is done.

Detail serially the entries by which the E. Mfg. Co. should record these transactions on its books.

8. A testator directed that the income of his estate should be paid to the widow during her lifetime, and in the event of her death the income to be divided equally between his son and two daughters. The widow died on August 1, 1908. The income of the estate for the year 1908 was as follows:

<table>
<thead>
<tr>
<th>Month</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Commonwealth Electric, interest</td>
<td>$300.00</td>
</tr>
<tr>
<td>February</td>
<td>Mortgage, interest, South Chicago</td>
<td>480.00</td>
</tr>
<tr>
<td>March</td>
<td>Mortgage, interest, Evanston</td>
<td>660.00</td>
</tr>
<tr>
<td>April</td>
<td>Rent of barn</td>
<td>120.00</td>
</tr>
<tr>
<td>May</td>
<td>Bank dividend</td>
<td>510.00</td>
</tr>
<tr>
<td>June</td>
<td>Santa Fe, interest</td>
<td>285.00</td>
</tr>
<tr>
<td>July</td>
<td>Commonwealth Electric, interest</td>
<td>300.00</td>
</tr>
<tr>
<td>August</td>
<td>Mortgage interest, South Chicago</td>
<td>480.00</td>
</tr>
<tr>
<td>September</td>
<td>Mortgage interest, Evanston</td>
<td>660.00</td>
</tr>
<tr>
<td>October</td>
<td>C. B. &amp; Q. R. R., dividend</td>
<td>120.00</td>
</tr>
<tr>
<td>November</td>
<td>Bank dividend and extra</td>
<td>765.00</td>
</tr>
<tr>
<td>December</td>
<td>Santa Fe, interest</td>
<td>285.00</td>
</tr>
</tbody>
</table>

Advances to widow during the year, January 31st, $250.00; March 28th, $500.00; July 25th, $1,500.00.

Apportion the income by months and write up the following accounts; considering the dates of payments to and from as the due dates:

Cash account.
Son's account.
Widow's account.
Each daughter's account.

9. In investigating the records and accounts of a business on behalf of a purchaser of a half interest, state concisely to what points you would direct your special attention. (Limit, 150 words.)
The Journal of Accountancy

10. A client bought a business for $17,500.00, basing his action upon the following balance sheet of December 31, 1909:

Assets:

| Plant                      | $4,710.00 |
| Merchandise inventory      | 7,385.00  |
| Accounts receivable        | 12,500.00 |
| Profit and loss            | 2,010.00  |

Liabilities:

| Accounts payable           | 10,000.00 |

$26,605.00

A charter was obtained from the State of Illinois with an authorized capital of $20,000.00, the balance being working capital, $2,500.00 paid in.

Prior to opening up under the new organization the directors determined to write off $1,250.00 from the Accounts Receivable, $210.00 from the plant assets, and $885.00 from the inventory.

At the first semi-annual accounting they showed a loss from trading, aside from a depreciation allowance of $600.00.

Assuming that all assets and liabilities remain as at the start, subject to the depreciation now allowed, draw up a Balance Sheet as of June 30, 1910.

COMMENTS

About three years ago—in the April, 1908, number—the editor of this department of the JOURNAL compared the New York, Pennsylvania, and English examination papers, pointing out the contrasts and differences in standard. To the readers of the JOURNAL, who have followed the work in this department, it will be of great interest to notice the various changes that have taken place. In a sense, limited of course, the examination papers are somewhat a gauge of the professional standard prevalent. In a previous number of the JOURNAL, a part of the New York examination papers was given. We are therefore now in a position to review to advantage the papers of the three different states—New York, Massachusetts, and Illinois.

The Massachusetts paper on Practical Accounting is somewhat on the style of the New York paper in the same subject. It is divided into two parts, three questions being given in each part, and the candidates are expected to answer two out of the three within three hours' time. One session is held in the forenoon from nine to twelve for the first part of the paper, and an afternoon session of three hours for the second part of the paper. Although the Massachusetts paper is not exactly of the same calibre and standard as the New York or Illinois, it must not be overlooked that this is only the second examination and that the board is drawing upon the early papers of the neighboring State Boards of Accountancy. From the trend of the paper, there is no doubt that it will improve in standard with each successive examination.

The Illinois paper, in the same subject, is also divided into two parts with three hours' allowance to each part. Five questions are given at
C. P. A. Question Department

each session, forenoon and afternoon, and the candidates are expected to answer all the questions. On this basis the candidate is allowed an average of thirty-six minutes to read each problem, gather the facts and solve it. If we consider that the heading of the paper reads, "The intelligence indicated by answers will be considered in marking the applicants, as well as the technical accuracy of such answers," we think that it is not fair to the candidates. No practitioner, even of exceptional ability and experience, could give an intelligent and technical accurate answer to any of the problems in thirty-six minutes. The eighth problem in the second part of this paper would require half an hour in order to collect the facts, not to speak of solving the problem. There is no doubt that the paper is of a very high and interesting standard and deserves all commendation, but why should the candidates be required to do impossible tasks? Coming in contact with the various members of the State Boards, we are convinced that they are far from intending to put before the candidates impossibilities, and therefore a little consideration of the time allowance when the papers are made up, would be of great help to the candidates and would establish beyond question the fairness of the board.

With the exception of the first problem in part one, the New York Paper on Practical Accounting is excellent. It is very fair, containing problems which the average practitioner has to meet daily; therefore the aspirant should be familiar with them. If a man has pursued a proper course of study, and not merely "crammed," and if he has a little practical experience, he can solve them, without difficulty, in the time allotted. The first problem mentioned before is rather highly technical, and as the mathematical accuracy in that particular instance is of the utmost importance, requiring verification and proof, it is questionable whether a greater time allowance should not be given to such a problem.

When we review the papers in Theory of Accounts, we find, regarding time allowance, that the criticism that applies to the State Board of Illinois in practical accounting, applies with equal if not greater force, to the State of Massachusetts. There (in Massachusetts) the candidate is allowed four and one half hours in which to answer ten questions in Theory of Accounts, and six questions in Commercial Law.

In the first place it is doubtful whether it is advisable to require a candidate to spend continuously four or four and one half hours at examinations. In New York, for instance, at the academic examinations given by the Regents, the Board of Health insists that an examinee be not permitted to spend more than five hours in the examination room. That we must remember is not compulsory, but rather elective. If an examinee has completed a paper in a given subject before the time allotted, he may, if he chooses continue on another paper. The hour at which he began the second paper is noted, and he must stop when the total number of hours for the two papers is five. In the case of Massachusetts, however, the candidate is actually compelled to spend four and one half hours, unless he can complete the two papers in less time, which, of course, is not true of the majority.

It is also questionable whether the six questions in Commercial Law
are sufficient. This is especially important when most of the states require ten, and on its face, it would indicate that the tendency of the Massachusetts Board is to undervalue the importance of the subject. In the law questions before us, if a man has read something on partnerships and corporations, and has studied a few definitions, that would be all that is required of him to pass the examination. The paper in theory of accounts in the case of this State, shows that the board has also considered general business aside from “mere theory.” The first question deals rather with efficiency of business than theory of accounts, but is nevertheless a very important proposition, and if many more like it were given in examination papers, the aspirants would not only be “accountants,” but efficient ones as well. The paper in auditing is excellent. It clearly indicates that the board recognizes the responsibility placed on accountants by the recent bill regarding auditing for banks.

The papers on Theory of Accounts, Commercial Law, and Auditing given by the Illinois State Board, are of a general character, and indicate a steady progress in the standard.

In the case of the New York State Board of Accountancy, the board has adopted an interesting procedure in connection with the papers on Theory of Accounts, Commercial Law, and Auditing. Each paper is divided into three respective groups, the candidates being required to answer some questions in each group. The idea of giving a number of questions and asking candidates to select two thirds of them, has its advantages as well as disadvantages. By the method adopted by the New York board at the present, while the candidate still has a choice of questions, he is compelled to know something about affairs in which ordinarily he would not be prepared.

The New York board is to be congratulated on the new syllabus just issued by the Education Department of the University of the State of New York, in the preparation of which it undoubtedly must have greatly assisted. The board gives a complete outline of what will be expected from each candidate regarding the four subjects in which he is to be examined, and if he has prepared himself according to this syllabus, he ought not to have difficulty in passing the examination. An interesting feature of this syllabus is its extensive bibliography. The candidate for examinations has always been groping in the dark as to which books he should refer to and consult in preparing for the examinations. In this respect it is quite a step forward. It is of particular importance to notice that in the bibliography are included books which are not strictly on accounting, but which are of great importance to the practitioner; such as, “Anatomy of a Railroad Report,” by Woodlock; “Financing an Enterprise,” by Cooper; “Funds and Their Uses,” by Cleveland; “History of Modern Banks of Issue,” by Conant.

The three papers, as a whole, if compared with the papers of a few years ago, tend to convince even the most pessimistic that the influx to the accounting profession is bound to be a healthy one, benefiting the profession at large and placing credit and dignity upon the Certified Public Accountant.
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