Journal of Accountancy, January 1931 Vol. 51 Issue 1 [whole issue]

American Institute of Accountants

SINGLE COPY 35 CENTS PER ANNUM $4.00

The JOURNAL *of* ACCOUNTANCY

VOLUME LI JANUARY, 1931 NUMBER 1

CONTENTS

Issued Monthly by
THE JOURNAL OF ACCOUNTANCY, INCORPORATED, *Publishers*
Publication Office, 10 Ferry Street, Concord, N. H.
Editorial and General Offices, 135 Cedar Street, Manhattan, New York, N. Y.
President, CARL H. NAU, 3334 Prospect Ave., Cleveland, Ohio
Treasurer, J. E. STERRETT, 56 Pine Street, New York, N. Y.
Secretary, A. P. RICHARDSON, 135 Cedar Street, New York, N. Y.
Entered as second-class matter at the Post Office at Concord, New Hampshire, under Act of March 3, 1879

Authors of Articles in This Issue of THE JOURNAL OF ACCOUNTANCY

John Whitmore. Member of the American Institute of Accountants. Member of firm, Patterson, Teele & Dennis, New York.

Harold D. Force. In practice, New York.

Harry H. Wade. Certified Public Accountant of Iowa. In practice, Chicago.

Kurt Schmaltz. Editor, Zeitschriftfür Handels Wissenschaft und Handels Praxis, Berlin, Germany.

Important to Subscribers

When you notify THE JOURNAL OF ACCOUNTANCY of a change of address, both the old and new address should be given. Kindly write, if possible, so as to reach the publisher by the fifteenth day of the month.

The JOURNAL *of* ACCOUNTANCY

Official Organ of the AMERICAN INSTITUTE OF ACCOUNTANTS

A. P. RICHARDSON, *Editor*

Vol. 51 JANUARY, 1931 No. 1

EDITORIAL

The Biennial Danger

January, 1931, is a time of danger. February is slightly less dangerous and the peril is not passed until the middle of the year, but January stands supreme as the month of imminent jeopardy. This is because this year forty-four states permit their legislatures to assemble and do those things for which legislatures are most justly famed. One of the chief pastimes of certain legislators seems to be the introduction of new bills or of measures for amendment of existing laws affecting the practice of professional accountancy. There is no good reason why there should be this recurring effort to abolish laws or to write new laws dealing with this one profession. Most of the laws are fairly good and have operated well, but there is always somebody on the outside who wants to get in and, therefore, hopes that by the enactment of a new law it will be possible to reopen the waiver so that he may avoid examination. This year, for example, it is quite definitely announced that there will be amending bills introduced in three states. Probably other states which have not made any announcement will attempt to disorganize the profession. Most of these efforts will fail. On the other hand, in some states where there should be amendment there is no special effort to bring it about because no one takes much interest in the matter and the members of the profession there are few.

Amendments Generally Useless or Worse

Amending laws is very much like amending by-laws. There are organizations which never meet without amending by-laws, even if it is only in the position of a comma. The very act of amending something seems to give infinite joy to the amender and in nine cases out of ten the effect of the amendment is practically nil. That is true also of amendments of laws in many cases, but now and then there is something really menacing and, consequently, accountants and others interested must be on the alert. Much money must be spent and time wasted lest an injury be done to the profession, and the lamentable part of it all is that the legislators who do all this undesirable work have no possible interest and are not urged to it by any vehement demand of their constituencies. In nearly every case the suggestion for amendment comes from a group of two or three persons. Sometimes there is one proponent who has sufficient influence with a few legislators to induce them to put across, as the saying goes, his peculiar ideas and ideals. Legislators, as a whole, know nothing whatever of accountancy and are not concerned with it. It would be delightful if someone could put into effect a rule that no state legislature shall be permitted to amend an accountancy law for the next five years. The profession could then settle down to make the best or the worst of what exists and out of the experience of a quiet lustrum it might be possible to devise a new law which would meet all the requirements and could be adopted in all the states. Of course, that is purely Utopian. No such condition will ever exist. In the meantime we shall go on watching and fearing, while legislatures are about to meet or are meeting—and we shall thank God when they adjourn.

The Compleat Banker A great deal has been said and written about the desirability of educating the public to the true nature of accountancy, and occasionally it appears as though something had been accomplished. The public does know more than it did about accountancy as a whole. The status of the profession grows better day by day. But there is still a most astonishing lack of information of some of the fundamental things with which it might be expected that any business man would be familiar. This thought is aroused by a story which is being told. It appears that one of the large accounting firms was severely criticized by a client because in the balance-sheet inventories were taken at cost or market whichever was lower. The criticism occurred at a time of falling prices and it was the desire of the client to have inventories shown at cost. The dispute between accountant and client reached such a point that relations were severed temporarily and the client besought his banker to come to his aid. The president of a large bank then called upon the senior partner of the firm in question and pointed out to him that he thought the condition of the client was sound and he protested against writing inventories down to cost or market. He went further and said that he had never heard of any accountant who would suggest that inventories should be valued on such a basis. He said it was ridiculous to think that any such measure of values could be recommended, and he requested the accountant to agree with the client so as to bring about a restating of the balance-sheet with inventories on the basis of cost. The accountant made the obvious reply that he was not very much interested in the opinion of the banker one way or the other—he was engaged in stating the values as he understood they should be stated, according to correct accounting principles. The banker became vehement and angry. When this point was reached the accountant sent for the pamphlet, issued by the federal reserve board, entitled *Verification of Financial Statements.* He asked the banker—who, it will be recalled, was the president of a large city bank—if he had ever seen the pamphlet, and found that he had not. He then turned to that page where the question of inventory valuation is discussed and pointed out to the banker that "cost or market" was accepted practice. Of course, that ended the incident.

A Desirable Course of Reading

There are two remarkable points about this story. One is that a banker who was supposed to be an eminent member of his profession had never heard of a set of rules or suggestions, or whatever one may wish to call them, approved by the governing body of the banking interests of the country. One would think that even if the banker were busy playing golf or attending to any other function which a modern banker is called upon to perform, some one of his subordinates would have brought to his attention so important a document as one which lays down principles on which the financial statements of borrowers are based.

A Novel Notion of Safe Practice

The second and more extraordinary feature of the story is the evident desire of the banker to have a somewhat shaky borrower present a better statement than the conditions merited.

It is supposed to be a principle of banking that the banker shall look first to his security and in determining the value of that security shall be governed by an ultra-conservative policy. It would seem to an ordinary observer that the banker's inclination would be to insist, not that the statement be flattering, but that it err, if at all, on the side of pessimism. Sometimes people wonder why banks get into such frequent trouble with borrowers who are unable to meet their obligations. The incident which has been recorded is one of the reasons.

Suggestions for Advertising Accountants

One of the well-known American newspapers recently published an advertisement under the heading "Accountant," reading as follows:

> "C. P. A. firm seeks experienced accountant to solicit business; excellent opportunity for progressive man."

The correspondent who sent us the clipping containing this advertisement says, "I would appreciate your comments on this, and hope that some steps may be taken, if possible, to put a stop to this sort of thing, which is a reflection upon the entire profession, not only in . . . but elsewhere." True enough, but what can be done? There is no law which prohibits a man from traveling up and down the streets seeking business for his employers. There may be rules of conduct which control certified public accountants in that particular state or in any other state, and if the name of the firm were known perhaps a complaint could be lodged against the partners. If the advertising accountants were members of the American Institute of Accountants that, of course, would offer opportunity for strict and salutary discipline. But the probability is that there is no way at all of reaching the advertiser. It is perhaps a firm which is not amenable to any existing form of discipline. No doubt the advertiser obtained the sort of man wanted and sent him out to call upon everyone and to extol the peculiar merits of his employer. The only suggestion which occurs to us is that perhaps the best way to assist the progressive man to demonstrate his usefulness and produce results would be to dress him up in a sandwich board and let him walk up and down Broad Street, or State Street, or Market Street, or whatever the street may be. People who would engage an accountant by virtue of solicitation would be impressed by the appeal of a sandwich board.

"Residence Qualification" in the Courts

A decision recently rendered by the supreme court of South Carolina may have an effect upon the regulation of the entire profession of accountancy in the United States. It calls in question the validity of any enactment which differentiates the treatment accorded to citizens of one state from the treatment of citizens of other states; and this is important because there is a tendency to place obstacles in the way of crossing state lines in the practice of accountancy. The case was one in which William H. James presented a petition asking for a writ of mandamus to compel the South Carolina board of examiners of public accountants to issue him a certificate as a certified public accountant under the terms of statutes regulating the practice of the profession by certified public accountants. The case involved the construction of certain provisions in the South Carolina C. P. A. law. It was asserted by the petitioner that, although born in South Carolina, he is now a non-resident, that he is a licensed and registered certified public accountant of Georgia, Tennessee and North Carolina, that he has practised the profession for thirteen years and is qualified to meet the requirements of obtaining a certificate in South Carolina. Efforts to obtain a certificate from the state board of South Carolina had been futile and it was alleged that the respondents refused to issue the certificate mainly for the reason that the petitioner did not show that he had an office in the state of South Carolina, which the respondents regarded as necessary under the regulations made by the board and in harmony with the statute under which the board received its authority. The statute provides for the granting of certificates to residents of the state and also to non-residents. The court, after quoting from the statute, said, "Our examination of the statutes fails to disclose any requirement contained therein that a non-resident certified public accountant, properly qualified in all other respects to practise the profession, must maintain an office in this state. It appears, therefore, that the respondents have placed an additional requirement upon non-residents which is not in harmony with the statutory provisions. We do not regard this additional requirement as a reasonable one. A certified public accountant may do his work without the necessity of maintaining an office of his own in South Carolina. In fact, his work is more usually done at places of business of his clients."

Court Discusses Restrictive Laws

So far the judgment of the court is one concerned entirely with interpretation of the South Carolina statutes and it is to be presumed that the judgment is final. At the same time the court decided a suit for injunction to restrain William H. James, or anyone employed by him, from making an audit of the state highway department's books and accounts on the ground that neither he nor his employees were duly registered as certified public accountants in South Carolina. The injunction suit was based upon the plea that the governor had the power to designate a certified public accountant or firm of certified public accountants to conduct the audit in question. The interpretation sought by the petitioner in the injunction suit apparently was to the effect that one who was not certified under the laws of South Carolina was not certified in the eyes of the South Carolina administration. The court, having held that Mr. James was entitled to a certificate as a certified public accountant, decided that the injunction should not be granted. All this is of importance to the accountants of South Carolina, and perhaps of indirect importance to practitioners in many states where restrictions are thrown about the practice of the profession; but of far greater importance to the whole future of accountancy in this country, especially with reference to its regulation, is the following portion of the opinion:

"The purposes of the statutes under consideration, as we view them, were to protect real certified public accountants from the competition of persons engaged in accounting business who were not certified public accountants, and to protect the people generally from having audits made by persons who were not certified public accountants when it was desired to have such audits by only that class of accountants. We find nothing in the law which would justify us in holding that a non-resident certified public accountant, duly qualified in all respects to practise his profession in our state, must actually maintain an office in South Carolina. If the statute had a requirement of that kind therein it might result in a holding that the enactment contravened the provisions of the constitution of the United States, for the reason that it discriminated against citizens of the United States who happened not to be residents of this state. Of course, this court will always seek to hold an act of the general assembly as coming within the provisions of the constitutions of this state and the United States, and will read its language with that purpose in mind."

The Fourteenth Amendment

Here, it seems to us, is matter upon which all accountants may ponder. Those who would have us believe that the salvation of the profession lies in prohibiting qualified men of other states from practising in any state might do well to pause in their career and make sure that these exclusive laws for which they argue and whose enactment they endeavor to bring about will be held constitutional when brought before the courts of the land. The fourteenth amendment to the constitution of the United States provides that no state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor deny to any person within its jurisdiction the equal protection of the laws. While in some cases a distinction of privileges according to residence may be based upon rational considerations which would be upheld by the courts, it is hard to see how the right to practise accountancy may fairly be held to depend on residence or the maintenance of an office within a state. Any attempt to insert such a provision in a statute may be expected to meet with instant opposition which will perhaps endanger a statute otherwise worthy. Accountancy laws have experienced difficulties at the hands of the courts in Illinois and in Oklahoma, as well as South Carolina. It hardly seems the part of wisdom to make requirements on points which really do not affect one's qualification to practise.

Legislation May Be Undesirable

It has been the opinion of a great many accountants for many years that legislation restricting practice of accountancy to persons registered in the state was not only undesirable but would not be sustained if brought to bar. Indeed, there are some who would go further and say that the ultimate advantage of the profession does not lie in prohibiting reputable practitioners from carrying on their work. Such restrictions make only for bitterness, and in the last analysis they seem to work adversely to their makers, for the large firm, which is commonly supposed to be the culprit for whose control these laws are passed, if prohibited from entering the state in the course of professional practice, will undoubtedly open a branch office in order to conform to the law, and the competition created by such a development will probably be more effective than in the other case. This, however, is a question upon which it is unnecessary to argue now. The point which now impresses is the opinion rendered by the supreme court of South Carolina, apparently without vital connection with the subject before the court. The judgment might have been rendered without reference to the question of constitutionality of restrictive laws, but apparently the subject was of such importance that the court felt impelled to mention it. The decision will excite wrath and praise, but if it can bring nearer the day of a definite settlement of this much agitated question of inter-state practice it will be a godsend to the whole profession.

Poverty and Riches of "Standard Costs"

BY JOHN WHITMORE

"Standard costs" as used in the title of this article (and as used in the article itself wherever it is so written) means the system which is called by that name in the papers and discussions of the cost accounting division of the International Congress on Accounting, New York, 1929. This system includes the principle of ordinary standard costs, which is as old as organized manufacturing; and it includes the principle of measuring the variations of actual costs from standards; and it definitely, and as a matter of principle, and without distinction between industries of different characters, excludes the recording of costs as actually and directly incurred under each separate manufacturing or construction order; and it includes the using of standard costs as a basis for calculating additional remuneration to factory employees.

I have called this article "Poverty and riches of standard costs." What I regard as the poverty of the system is its so nearly exclusive emphasis on the calculation of costs before manufacture, at the expense of the character of the actual subsequent accounting, as is shown in its exclusion of manufacturing-order cost accounts even under conditions that render them most useful and valuable; and again in its throwing expenses of the most various characters together and distributing them all as "burden"; and again in its restriction to a single type of factory accounting, as if all manufacturing operations were of a single type. And what I regard as its riches is that from the same emphasis on the prior calculation of costs, there has emerged a plan for supplementing wages (completing the remuneration of factory labor) which substitutes a profound common interest, both in the operations as human labor and achievement, and in their financial results, for the narrow individual interests created or accentuated by most if not all existing supplementary wage schemes.

Throughout these articles and discussions there is constantly proclaimed the opposition (very largely imagined) of two systems of cost accounting, namely, the calculating of the costs of products before they are manufactured, and the accounting for the expenditures in the actual manufacturing under individual manufacturing order numbers. This is all indicated in a quotation

(*Proceedings of 1929 International Congress*, p. 863) from an article published in December, 1908, referred to as the beginning of the "standard costs" system, as follows:

> "There are two radically different methods of ascertaining costs; the first method, to ascertain them after the work is completed; the second method, to ascertain them before the work is undertaken. The first method is the old one. . . . The objection to the old method is not only that it delays information until little value is left in it, but that it is wholly and absolutely incorrect. . . ."

I commented in my article, published in the September, 1930, issue of THE JOURNAL OF ACCOUNTANCY, upon the curious belief, equally conspicuous in the foregoing quotation and in the papers and discussions of the 1929 international congress, that where individual cost accounts for manufacturing or construction orders are kept, there are no calculations of costs beforehand; and this is proclaimed as the blind omission of accountants, who were "like Lot's wife, everlastingly looking behind" (*Proceedings*, p. 1250). In some industries (within my own knowledge, the textile and paper-making industries are examples) accountants may calculate costs beforehand, from specifications of the products to be made and the materials to be used, and with existing manufacturing records. But in the engineering and machine shop industries? The work of estimating must be at least under the control of qualified engineers, and it requires the coöperation of the heads of the manufacturing departments and the departments auxiliary to the manufacturing departments: of foundries as to pattern and moulding and cleaning costs and risks of defectives; of machine shops as to the machining processes and often as to the economy of designing and making special tools; and so on as to any other works departments whose processes are not merely routine, but may be modified and adapted to special ends with varying costs, concerning which those who are closest to the operations must have the surest knowledge. If the work was ever omitted, it was not the omission of accountants, for it never was and never will be their work; and further it never was omitted, but was always done by the proper people. Any idea to the contrary is completely exploded by the passage quoted at the end of my article in this JOURNAL for September, from Garcke & Fells' *Factory Accounts* published in 1887 and always a standard work in this country.

The same quotation refutes also the idea expressed in such passages as the following:

> "The old methods of comparing actual costs with past actual costs have the element of almost entire uselessness" (*Proceedings*, p. 774).
>
> "Comparison of the cost of a part manufactured this month with its cost last month and the month before" (*Proceedings*, p. 867).

For though such comparisons are provided and tabulated quite automatically by the successive debits to the particular account in the stores ledgers, and though that comparison has the value of one strong light, amongst others, upon the state of manufacturing economy in the plant, the 1887 quotation describes the systematic procedure for showing the comparison between actual costs and costs previously estimated.

It must be borne in mind that the keeping of separate cost accounts for individual manufacturing orders is a method which belongs to the machine industries; and even in these, only where the manufacturing orders are usually large. Even so, it was at the time the 1908 article was published used only to a very moderate extent. In 1916, eight years later, the federal trade commission had reached the conclusion that not more than ten per cent. of American manufacturers knew the costs of their products. Some of these were keeping individual manufacturing-order cost accounts; and some were merely crediting their manufacturing accounts with the production at costs calculated beforehand; and some were using standard cost sheets, pure and simple, without bringing the figures into their general account books at all. I was familiar with all these procedures, and with others, in actual operation before December, 1908. In an article in this JOURNAL for May, 1908, I described the procedure in using standard costs to credit the manufacturing accounts in industries where the manufacturing orders are too small and numerous to permit the keeping of individual cost accounts for them, and at the same time I described the procedure in determining variances from standards in such industries.

The only fundamental difference between "the new method" and methods previously existing was that "the new method" excluded entirely the keeping of individual manufacturing-order cost accounts in any circumstances whatsoever. There was otherwise, as I have already said, a difference in emphasis; not without important consequences.

"The new method," the "standard costs" system, has in the meantime developed its own character, indicated or described in the papers and discussions of the 1929 international congress. I proceed now to consider the "standard costs" system as so developed, and afterwards I will endeavor to indicate briefly what factory accounting which includes individual manufacturing-order cost accounts really is.

There is in the *Proceedings* only one article which describes the operation of the "standard costs" system in such a way that one can attempt to follow the working step by step, viz. Mr. Eric Camman's "Standard Costs: Installation and Procedure." For this reason alone I take it for consecutive examination, but before I conclude I shall quote important passages from the other articles, all written by stanch advocates of the "standard costs" system.

Mr. G. Charter Harrison has indicated the "standard costs" procedure briefly and rather casually on page 862 where he says that it "provides for showing on the debit side the actual expenditure and on the credit side the amount which should have been expended." Mr. Camman on page 876 outlines three alternative methods of debiting and crediting work-in-process accounts:

(a) to charge at actual costs and credit at standard costs. (This is apparently Mr. G. Charter Harrison's method.)
(b) to charge at standard and credit at standard—diverting differences to variance accounts.
(c) to charge at actual costs and credit at actual costs—inserting standard costs on both sides in parallel columns.

Mr. Camman dismisses method (a) as inadequate because it "allows cost variations to be concealed until a count of the work-in-process on hand is made." It is, however, worth noting that this method of charging work-in-process with the actual costs of manufacture, and then crediting the factory output at calculated costs (no individual manufacturing order cost accounts being kept) is a simple and within its own limits a useful method. I was familiar with it in two important (then and now) manufacturing corporations more than twenty-five years ago. It is of course true that the difference between actual and calculated costs is not shown until an inventory has been taken.

Under method (b) differences are diverted to variance accounts. How the differences are ascertained is not made very clear, but it is without waiting for a count of work-in-process, for it is said that methods (b) and (c), unlike (a) "disclose the differences and deal with them more promptly." It is indicated that practically the only difference between (b) and (c) is that under the former, the differences being diverted, the goods are charged to cost of goods sold at standard costs, while under the latter they are charged to cost of goods sold at actual costs. Mr. Camman prefers method (c).

We may proceed then to method (c) which is to charge work-in-process accounts at actual costs and credit at actual costs, inserting standard costs on both sides of the account in parallel columns. What this means is best expressed in Mr. Camman's own words (p. 878):

> "Costs of goods sold are expressed in actual costs. Inventories are carried at actual costs. The standard costs are confined to the factory ledgers and are not used in the balance-sheet, profit and loss account or other financial statements."

Now parallel columns are for comparison and the proposal must be to insert standard costs against comparable actual costs. How are the actual costs, against which comparable standard costs are to be inserted in parallel columns, ascertained? So far we know only that it shall not involve waiting for a count of work-in-process, but shall be accomplished "more promptly." As far as Mr. Camman explains, it is best to quote him (pp. 884 and 885):

> "The accounts are classified and grouped, the best grouping being by product classes. Under this arrangement a division is composed of similar products, the variations on which are likely to be similar in proportion and attributable to the same causes. Another arrangement is a grouping by departments and sub-departments; usually this plan requires more care and necessitates the devising of ingenious means to prevent the errors of excessive averaging which may result from too broad a combination.
>
> "It must be remembered that the variances which occur and which are reflected in the entries on the debit side of the accounts are averaged and spread over the cost of deliveries of products as reflected by the entries on the credit side of the accounts. Under a proper classification this method will give a reasonably correct result."

It is not very clear. But I will leave it where Mr. Camman leaves it. Differences are determined by product classes and are spread over the cost of deliveries of the products of each respective class, and with a proper classification a reasonably correct result is obtained, and the differences are ascertained more promptly than by waiting for a count of work-in-process. That is, they are presumably determined at not infrequent intervals. It would not be difficult to enumerate the possible ways in which this can be done, for their number is quite limited. I will, however, not stop to do this, for it would not with certainty identify Mr. Camman's method, and while I am concerned somewhat with the method I am more concerned with what is in the end accomplished. Concerning this I again quote Mr. Camman (p. 879):

> "The general purpose is to make suitable provision for the development of the figures in a manner which will be of practical help in the solution of the problems of management. It is in this direction that standard cost accounting is so much more adequate for modern industrial requirements than the job-order and unit-cost methods which it replaces."

Mr. Camman's conclusion is a statement and certain analyses of the "labor cost variance," the "burden cost variance," and the "material cost variance" for a period. These are spoken of as "some of the typical cost data which will be forthcoming through this method" (p. 885). I will in each instance give Mr. Camman's opening explanation of the source of the figures, and then his concluding statement of the results reached, each as nearly as possible in his own words. I must of course omit his detailed description of these analyses, but these can be read in the *Proceedings*.

Labor Cost Variance

> "The actual payroll is the source of information as to the amounts earned by direct labor workers during a period. The corresponding standard direct labor is derived by pricing and extending reports of production". (p. 885).
>
> "The pertinent facts as to labor have now been resolved: viz., 133% in hours at 105% in wages cause the labor cost ratio to be 140." (p. 886.)

Burden Cost Variance

> "Departmental burden accounts are the source of data as to the actual charges and accruals for indirect costs. The corresponding standard burden is figured by pricing and extending reports of production". (p. 887.)

Actual machine hours were 77% of capacity and 103.1 of the standard hours for the actual production.

Standard burden for capacity.............	$18,000.00
" " " actual production.....	13,440.00
" " " machine hours actually operated. (77% of capacity and 103.1 of standard hours for the production).....	13,860.00
Actual burden charges and accruals, per departmental burden accounts............	11,970.00

Actual burden was therefore 89.1 of the standard for the production, and 86.4 of the standard for the machine hours operated.

Material Cost Variance

"The actual cost of materials consumed is obtained in the customary way, and the standard cost of the standard quantities specified is computed by extending reports of production". (p. 888.)

"The story therefore as to materials is that 114.4% of the quantity specified was used at 98% of the cost". (p. 889.)

Possibly such "typical cost data" as these may be "of practical help in the solution of the problems of management"; and possibly they prove that the "standard costs" system is so much more adequate than the individual manufacturing-order system; but I am going to contend that exactly the contrary of the latter proposition is the simple truth. I believe we have got to get back to original facts and that we have had no business to get so far away from them. I am going to describe very briefly what the individual manufacturing-order cost system is, but first I am going to make a few quotations from the other papers, all (as I have said) by stanch advocates of the "standard costs" system.

"It is obvious that these variances—the difference between the standard and actual scrap made, not including any spoiled or defective work—must be reported by kinds of materials, by departments or operations on which the scrap is made". (p. 901).

"Variances must be reported by departments and by operations, and in some instances it will be advisable to classify them by kinds of product. This is not a difficult task, because obviously it is advisable and in many cases necessary to know just how each workman is performing, and since this must be determined from the individual work tickets, it is only a question of sorting and tabulating variances from individual tickets". (p. 904.)

> "It is not enough just to establish standards, and incorporate them in the costs. They must be constantly studied and since standards are of no value unless there is an attempt to live up to them, the variances must be the subject of constant analysis and study. Then it follows that if they are to be analysed and studied they must be presented in a way to bring out the essential facts". (p. 908.)
>
> "If the results can not be traced back to individuals responsible for those results, if the performance can not be definitely assigned as to responsibility to an individual, then the main purpose of the cost accounts to give control is lost". (p. 1245).
>
> "Variances are analysed and reported in full detail so as to determine the real cause and individual responsibility for them." (p. 1259).

There is no doubt that these quotations describe what must ultimately be accomplished, if there is to be an effective check upon the economy of manufacture. Variances in scrap produced must be identified by operations, and variances in labor costs must be identified by operations, and so on with all other variances. The work must be limited to variances that matter, and nothing that really matters must be overlooked. One needs in the first place a convenient indication where something has developed that deserves attention. One is not going to subject every stores order and every labor ticket to a critical examination, and on the other hand it is a poor starting point merely to know that something is wrong somewhere in the cost of a considerable number of orders (even if they are of one "product class") in a considerable division of time. It seems to me unquestionable that the single manufacturing order, or sub-order, is the most convenient unit to disclose and give the initial approximate location of any excessive cost. The form and ruling of the cost ledger, giving the original cost account in fairly well analized shape, help very greatly. I do not know where there are equal advantages, even in this single respect, in any other procedure.

In trying to indicate what, in this one respect, factory accounting which includes individual cost accounts for manufacturing or construction orders is, I shall add little or nothing to what is either in Garcke & Fells' *Factory Accounts* (1887) or in my own articles in this JOURNAL August, 1906, to January, 1907.

As to materials, first. It is too late to begin to secure economy in these when they are issued to the shops to be used in manufacture, and in saying this I am not referring to purchase prices. I am referring to the quantities purchased and the times of purchasing. The need is that the quantities shall be sufficient and not excessive for specific and standard requirements, and that the times of purchasing shall be such that the shop orders shall be filled promptly upon presentation to the storehouse. Accounting control, beginning with the purchase invoices, must be established, for this is double-entry factory bookkeeping. And effective physical control of stores must be created, or there will be troubles which the accounts will disclose, but which ought never to occur.

The departments here involved are the engineering department, the purchasing department and the stores department. The stores department is naturally the centre, and the stores ledgers are the essential instrument. The sequences of the accounts in the stores ledgers are of a good deal of importance, for convenience of working and of observation. Every account for materials and supplies, stocks of which are to be regularly maintained, is headed with a stock limit and standard order, established and revised as necessary by the engineering department. This, of course, applies to all operating supplies, and to all supplies and parts for plant repairs, as well as to materials which enter into the products; for factory accounting is as closely concerned with the economizing of factory capacity, the avoidance of idle machine time from any cause (as for instance the lack of promptness and speed in repairs), as it is with economy in the use of materials or direct labor.

The storehouse is furnished with lists of materials for all orders to be manufactured, and columns are provided in the stores-ledger form to enter these in the respective accounts. If these appropriations of materials reduce the free stocks below the stock limits, then the storehouse issues requisitions upon the purchasing department. These requisitions are noted in the stores ledger accounts. They may be subject to the O.K. of the engineering department, which is thus given the opportunity to raise any question which any changing conditions may suggest. A copy of the actual purchase order is furnished to the storehouse and noted in the stores ledgers with date of contracted delivery. The storehouse as well as the purchasing department watches deliveries for any lateness and need to trace. The storehouse is responsible for using every means now in its possession to insure the prompt filling of shop orders and the maintenance of free stocks in accordance with the engineering department standards in force.

Each shop has its own series of stores orders, and each series is consecutively numbered. They are summarized on sheets upon which the two final figures of the numbers are printed consecutively. When the summaries are closed at the end of the month, the blanks show the unfilled shop orders. The extent to which the storehouse is fulfilling its purpose of filling the shop orders without delay is plainly visible. Inactive stocks are plainly visible in the stores ledger accounts.

A cost account is kept for each manufacturing or construction order. If the order is divided into sub-orders, there must be the same division in the estimates, or in the standard costs sheets for standard products. The cost-ledger forms are ruled with all the columns necessary to facilitate comparisons between actual costs and previous calculations. The original stores orders for materials may be kept sorted by manufacturing orders. No excessive use of materials, defective materials or spoiled work can be obscured. Usually, if not always, these things are disclosed both in the material comparisons and in the labor comparisons of which I shall speak presently. We are dealing now with original facts, where they occur, and not with far-off percentages of variance.

And as to labor. It is very simple to summarize the direct labor on each manufacturing order, or sub-order, each payroll period. This is done, on a form provided for the purpose, from a weekly labor sheet kept for each workman. The original labor tickets are also kept sorted by manufacturing orders. When a manufacturing order is completed the total of the direct labor is compared with the same in the standard cost or estimate, and the comparison and all the original labor tickets and summaries are passed on to a man who is not an accountant, but who has knowledge and experience of shop practice, who should conduct a continuous scrutiny of direct labor costs, whose department is organized for this purpose. This is all a part of the practice in connection with individual manufacturing-order cost accounts, as I have myself seen it in operation.

I come to what I suppose I must call "burden." It is intimated in more than one paper that the treatment of these expenses (i. e., all expenses other than materials and direct labor) is practically the same with the "standard costs" system as it is with individual manufacturing-order cost accounts. I am not willing to subscribe to this. In fact, very far from it.

Mr. Camman says (p. 874): "The burden rates are the budgeted costs divided between machine hours, man hours, or other measures of time occupied in the manufacturing processes." Closely similar quotations could be made from the other papers and discussions.

In the first place, as I remarked in my September article, not all expenses outside of materials and direct labor are, or are to be called, burden. Under certain conditions, no doubt, all of these expenses may be ascertained in their respective totals, and combined, and distributed to the costs of products (subject to any distributions to factory capacity not operated) by a uniform method. But where the manufacturing operations have a large and varied character, and this very definitely includes the larger machine shops, engineering works, and steel works, such a method is quite inapplicable. Power must have its own cost accounts, both for control of its costs and for any correct distribution of the expense. Fuels must be recorded as consumed for particular purposes, and wherever they are consumed in large quantities, the possibilities of standards of consumption are to be fully examined. Very largely the more expensive tools must be direct charges to the cost accounts for the products for which they are made, either in total immediately or by gradual amortization. The reduction of all the manufacturing expenses, not chargeable direct to products, to expenses of production centres (of which the machine tool with its hourly rate is one example) is in many cases the only possible way to arrive at practically true cost figures.*

I will close this part of the subject of this article with two general criticisms.

First: In these extended discussions of "standard costs" there is, I believe, no indication of, no reference to, any difference in types of cost accounts whether they are for the manufacture of fountain pens or locomotive engines, boxes of stationery or an electrical installation; always standard costs and always no "job-order cost accounts." Always a single instrument instead of instruments very varied, to be availed of, or often by a simple process discovered rather than invented, to meet whatever conditions there are. For it is the character of the operations that must determine the pattern of the accounts. This is true in the machine

*In relation to the various expenses included in "burden" it will not be unprofitable to bear in mind A. Hamilton Church's *Production Factors*, and David Moffat Myers' *Factory Power Plants*, and a number of articles on power costs in the *Engineering Magazine* (or *Factory & Industrial Management*) in the past few years.

industries, and it is even more simply true in the chemical and metallurgical industries, where a flow-sheet of the material practically gives, or may be directly translated into, the plan of the operating ledger. The two must correspond, step by step. A simple illustration is the cost accounts for an industrial power plant. It is the chart of the generation and conversion centres, and transmission lines, and meters, that gives the series of accounts through which is accomplished the distribution of all costs to the departments, and often units of equipment, using the power in any forms.

Second: It seems to me that, from the first, the proponents of the "standard costs" system, captivated I suppose by a sense of new discovery, have ignored everything that was done in the work of estimating and cost accounting by all the factory accountants and others who were before them, who thought and worked in the same field. And it seems to me that they continue to do so. Hence in these papers and discussions much attempted disparagement of all work other than their own. To such expressions I will not further refer, but I will take one statement seriously and simply made.

The chairman of the session of the 1929 international congress for the day devoted to cost-accounting discussion, himself an officer of the National Association of Cost Accountants, said (*Proceedings*, p. 1219): "Twenty-five years ago, cost accounting, or as we prefer to call it industrial accounting, was not in existence. The first books in this country were written just about twenty-five years ago and the literature before that time was very scarce." And yet Suplee's *Mechanical Engineer's Reference Book* (Lippincott, 1904) says (p. 787) "Valuable works upon the subjects of works management and cost keeping are the following: J. Slater Lewis' *Commercial Organization of Factories*, Arnold's *Complete Cost Keeper*, Arnold's *Factory Manager and Accountant*, Garcke & Fells' *Factory Accounts*, Matheson's *Depreciation of Factories*, and Metcalfe's *Cost of Manufactures*. Even this list did not include A. Hamilton Church's "Proper Distribution of the Expense Burden," which appeared in the *Engineering Magazine* in 1901.

And before quite closing this part of my subject I return for a moment to the quotation from the article of December, 1908, which is made the starting point of the "standard costs" system. In it, it was claimed first that the existing practice omitted the calculation of costs before manufacture; and second, that the determination upon completion of manufacture was "wholly and absolutely incorrect." As to the first, I have shown conclusively that there was no such omission; and as to the second Mr. Camman, at least, returns completely to actual recorded costs for the purposes of inventories, profit-and-loss accounts and balance-sheets. And these are the same actual costs except that they are certainly rendered somewhat less accurate individually by ascertaining them for "product classes" and reducing them to individual product costs by averaging the differences between the actual costs and the previous calculations; and they are certainly rendered less accurate by throwing expenses of the most various character together and distributing them all as burden. Still, far from regarding them as "wholly and absolutely incorrect," Mr. Camman uses them as true figures for the ultimate purposes of the accounts. It is proper to add that other advocates of the "standard costs" system dissent from Mr. Camman's procedure in this respect. Being skeptical of actual records, they seem to have perfect faith in the infallibility of calculations of individual product costs which are never tested by comparisons with actual individual product cost accounts. For my own part, I believe that as far as the previous calculations are sound and correct, and with the accounting control of factory expenditures as nearly as possible perfected, the differences between prior calculations and subsequently determined costs could be but small, inasmuch as the cost of idle facilities, and variations of indirect expenses from standards which are necessarily used for these in all cost accounts, and the costs of errors and accidents and certain inefficiencies (I have in mind particularly power wastes above normal allowances), should all be separately stated and carried direct to the profit and loss account.

But there is another aspect of the "standard costs" system. I mentioned it at the beginning of this article when I said that from its emphasis on the prior calculation of costs, there had emerged a plan for supplementary wages (completing the remuneration of factory labor), which would substitute a profound common interest for the narrow individual interests fostered by existing wage incentive schemes.

I will take this suggestion as it is expressed in the paper by Mr. C. R. Stevenson of New York, and I will try to develop the possibilities in it a little independently; for while the matter is alluded to not only in Mr. Stevenson's paper but elsewhere in these papers and discussions, there is apparently no attempt anywhere in them to treat it fully.

Mr. Stevenson is enumerating certain features of modern factory organization and accounts. His third item, stated at some length, is the setting of standards of costs of all sorts. Then follows:

> "Fourth: *Using practically the same standards as provided for in item 3 as a basis,** our next step is to set up incentive schemes whereby those who are responsible for operations will automatically share in the savings made."

For the space of a generation or more we have heard and known of wage incentive schemes and profit-sharing systems and bonuses. The first have been concerned, almost although not quite exclusively, with direct labor upon products, and almost always they operate to affect the wages of the workmen merely individually. They isolate the interests of each workman, and deepen his concentration on his individual job; and further they leave unaffected, at any rate for any good, a very large percentage of the whole working force. The labor of auxiliary departments, whatever they may be; the maintenance of the plant; the generation and transmission of power—all these and still other classes of labor have usually been outside of the operation of such schemes, and if these have resulted in greater efficiency of working, we have known that there was always a vast field to which their influence did not extend.

We have probably all of us considered plans by which this might be remedied, and more or less we have attempted it. In some industries the problem was comparatively simple, and in others it remained difficult. For long no general scheme that might be applied in the machine industries was, I believe, anywhere apparent.

Profit-sharing plans have aimed to secure supplementary wages to all employees impartially, but there has been the very great objection that the result depended on influences beyond the control of any employees, and very obviously outside the sphere of the factory.

In many industries there has been an attempt to offer all employees impartially the opportunity to earn something, and something very substantial, beyond immediate wages, namely pensions at retiring ages. That this should, at least in manufacturing in-

*Italics are mine.—J. W.

dustry, ever operate impartially or be effective except as to a moderate percentage of all the people employed, must always have been more than doubtful. But the attempt has been at least an acknowledgment that something substantial might be earned, ought to be earned, beyond wages at the levels which have existed.

The "standard costs" system contemplates that there shall be calculations of inclusive costs, prior to manufacture, or apart from the records of actual manufacture, for *all* production. It is to be assumed that these shall be as perfect as possible in all respects to represent complete economy of manufacture, fairly attainable. Not economy of working here and there, but absolutely everywhere; in the saving of materials, in efficiency of labor, in power costs, in maintenance costs, in the operation of every auxiliary department, in the utilization of factory capacity as far as work is provided therefor, and in perfection of product. This is not to be attained through the exclusive concentration of every employee on his individual job. It requires the perfecting of organization, and the coöperation of the whole force working together with a single aim.

The "standard costs" system, then, takes these calculations as a basis for a supplementary wage plan. It seems to be indicated that the additional wages are paid only to the more important employees, those upon whom responsibilities more conspicuously rest. If this is the meaning, I think it is only a first step. The appeal must be to the working forces as a whole and impartially. It is not even so much a matter of a common money interest as it is a matter of a single spirit.

I will not here attempt to outline exact procedure, which, however, is no difficult matter. The essential thing is that the total of the standard costs for the actual production, and the total of the actual costs for the same be used as factors in the determination of the measure of actual economy in the total operations, and that according to this measure, an additional equal percentage upon all wages, from the wages of the works manager to the wages of the humblest of what is called common labor, be paid.

As far as my understanding and judgment go, and my understanding may be incomplete and my judgment may be erring, this is the single contribution of the "standard costs" system to factory accounting and factory economy, and to the possibilities of higher wages with lower costs of products. But even if it is a single contribution, I believe it to be of supreme value.

Evolution of State and Municipal Administration and Accountancy

By Harold D. Force

It is my hope in writing this article to present a brief survey of the development of governmental accounting in our states and municipalities. Their technical aspects will be omitted.

It was not until some twenty years ago that definite progress towards improvement began. Prior to that time there had been little literature or recorded experience upon the business aspects of government. Apathy of the average citizen, except for the election of officers; irresponsiveness to the appeals of public-spirited citizens; laissez-faire ideas regarding government—all were largely due to inability to understand the functions and responsibilities of government. Inability to understand conditions was mostly due to lack of adequate and general information concerning them. Leaders of enlightened and intelligent public opinion were few. Government machinery had been allowed largely to take care of itself.

The well-intentioned men who entered government service found it not of the same standard or responsibility as business employment, and, so finding it, morale was lowered. Political influences dominated it. Conditions were favorable to neither integrity nor zeal. Fifty per cent of city budgets (at least $500,000,000 in the whole country) was invested in personal service. Waste of time and labor as well as of material and properties was enormous.

Large resources were in the hands of public officers and employees who were without any system of administration which required adequate accounting, reporting or preservation of evidence to determine wherein waste occurred or by which responsibilities might be fixed. Current information concerning government transactions was opposed by officers and employees afflicted by inertia towards change or affected by tradition and habit, as well as by those disposed to wrong-doing. States and municipalities were without sufficient data upon which to base economy of operation. There was still less disposition to obtain a true basis for judgment as to the relations of cost to service rendered. It was not realized that every dollar wasted, every dollar wrongfully diverted, whether in cash or material, every hour wasted by an employee, meant more sickness, fewer transportation facilities, lack of protection to the weak, lack of opportunity to the individual, greater misery and poverty for the poor, greater dissatisfaction and discontent for the average citizen through burdensome taxation. Inequitable public taxation also adversely affected employment in private industry, as it does today.

Distribution of the tax burden was not understood. It is probably not yet generally realized that state and municipal taxes are not entirely paid for by the direct taxpayer, the property owner or industrial employer; that the latter merely pays the bills and passes the cost to those with whom he deals. Each member of the community is the indirect taxpayer, paying in rent and in all other prices connected directly with his cost of living and privileges of doing business.

The basis for borrowing money in large cities was the valuation of the properties of taxpayers, i. e., the "tax valuations," a certain percentage representing borrowing capacity, also called "debt limit," or licence to go into debt. This represented "municipal solvency."

Borrowing for expenditure purposes, intended for expenses as well as for permanent properties, could go on increasing and be kept up to the legal limit as long as the property values of the growing city increased with population, irrespective of whether the borrowing was justified or not.

In all large cities the rate of increase in per-capita debt was greater than the rate of increase in population, while annual interest and redemption charges, together called "debt service," exhibited the highest per-capita cost of any branch of annual expense or budget item. Whether expenditure represented value received or what was the true financial position of cities was not known nor obtainable from records or accounts.

The tax budget, properly planned and administered, has been found to be the most important instrument of financial control for governments, national, state and local. The budget system, upon scientific accounting principles, which comprehend statements of revenue, expenditure and the surplus of each fiscal year, has grown up in recent years for the use of well managed states and cities. It is too comprehensive a subject for review here.

It was not the effective instrument which it is intended to be at the time of which I am writing. Budgets did not represent complete pictures of annual financing. Where they represented merely estimates of operating expense they were almost always "padded" so as to meet the expected "cuts" by legislatures and city councils. This and other loose practices still exist where an inefficient, unscientific budget system is absent. Lump sums were usually requested, and the requests were unaccompanied by statements of specific or functional purposes for which the money was to be expended. If more money than needed was granted it was used nevertheless. If the granted appropriations proved to be short, bond issues were required to meet the deficiencies. This practice, together with the deficiencies due to failure to provide allowances for uncollectible taxes, cast a burden upon the revenue of ensuing years.

Since no state or city possessed a system of accounting which accurately reflected the costs of operation, accurate estimates of expense for a year or two years in advance were impossible, even were officers disposed to submit them.

Conditions of Twenty Years Ago in New York

The conditions existing twenty years ago in the city of New York were characteristic of all large cities of the time. Publicists and municipal experts who had made careful investigations into the city's financial affairs and accounting conditions estimated that, out of $80,000,000 for personal service in that city's tax budget, fully 25%, or close to $12,000,000, was lost through collusion, idleness and inefficiency. For the $15,000,000 worth of supplies purchased at wholesale, higher prices were paid than could be obtained by a citizen at retail. There were no standard trade specifications for use of purchasing officers. The city paid cash but did not receive discounts. Competitive bidding was ineffectively carried out. The letting of contracts was unduly delayed and often subject to collusion. Millions of dollars worth of supplies were stored without adequate stores accounting. Weights, qualities of goods and deliveries were ineffectively checked up and insufficiently inspected. The estimated annual loss through these various unbusinesslike methods alone was placed at $5,000,000. Real estate to the value of from five to twenty-five millions of dollars was purchased each year and double prices were often paid.

In several departments of the city annual operating expenses were paid from the sale of long-term bonds or corporate stock. The department of docks, one of the chief municipal industries, had its annual operating expenses so paid during many years until the law was finally changed. The purchase of a horse, for instance, might be paid for out of the proceeds of a sale of 50-year bonds, although the horse lived only ten years. Similar financial wastes occurred in purchasing the harness, cart and oats. It was estimated that $25,000,000 of the city's long-term debt represented payment of current expenses.

At the same time it was rumored that another city had been paying its expenses out of trust funds!

The city's entire accounting system was intended to show as nearly as possible whether a department's officers kept within the appropriations or not, and not at all whether there were or were not accounts to indicate efficiency and inefficiency. It could not be told, for instance, without special investigation by a department's accountant, what it cost to carry a passenger or a ton of freight to Staten Island, so as to compare with private operation. Nor was the unit cost of any other public service obtainable.

The city's rates of increase in per-capita debt and debt service were greater than the rate of increase of population.

There were several hundred accounts upon the comptroller's books which represented assets or liabilities, but no one knew which. There could be prepared no semblance of a balance-sheet. Financial reports did not give an intelligent view of the city's true financial position.

Efforts to Correct Conditions of Twenty Years Ago

Over twenty-five years ago professional and public interest was beginning to be aroused in the large states and municipalities concerning public administration, finance and accountancy. The increasing burdens of taxation and public debt, diversion of public funds to other than public uses, rapid increase in budgets, costs of government and costs of living affected by government, as well as the lax business methods, were becoming more widely known. The public press; writings and addresses of publicists; investigations of taxpayers' organizations, civic associations, municipal experts and public accountants were beginning to inform the public mind.

Active steps towards the correction of conditions had their beginnings in organizations for that special purpose, chief among which was the National Municipal League organized to stimulate interest for reform in municipal administration. The United States census bureau was directed to obtain comparable statistics of cities and states, and to apply uniform classifications to methods of reporting to the federal government. The bureau of municipal research of New York was created for research into government conditions and methods; to inform public opinion; to coöperate with officers; to aid in fixing responsibility for waste of public funds; to establish methods to insure fidelity and efficiency in administration, and generally to effect the pioneer work so greatly needed at that period. Originally formed for New York service this bureau has since given valuable service to many other cities and to state governments.

The plans to install in that financial center of the new world a more modern system of financial records and accounts were of prime importance. With the adoption and proper administration by that city of scientific methods of accounting, and of currently reporting the details of municipal business, the basis would be laid for efficient administration in all branches of city activities. It would also constitute an example to be followed by all other progressive cities and states.

Comptroller Metz of New York had been elected upon the issue of "a business man for the head of a city's business office." His determination to give the city such an administration had been found by him, after two years in office, to be impossible without a complete reorganization of accounting. The $500,000,000 and more of business passing through his office each year was found impossible to control. His statement was, "The city's money was being thrown away."

During the years 1906–1908 the bureau of municipal research had been making an intensive investigation of the city's methods and conditions at the request of the comptroller. Its report to him in 1908 was followed by a comprehensive plan of reorganization. The committee on finance and currency of the Chamber of Commerce of New York reported upon the subject as follows:

> "No other issue has been presented to our citizenship in years so vital to the permanent welfare of Greater New York. All other questions must take second place to this, for every measure of municipal advance depends upon honest,

economical administration of the city's finances, and this can not be secured without a proper system of accounting."

In these early days of administrative and accounting reform the cities of Philadelphia, Chicago, Baltimore, Boston and several other cities in Massachusetts, were notable. Similar conditions prevailed and similar comprehensive efforts were put forth to correct them.

Conditions of Today

There has been undoubted improvement in many directions in those cities and states which have been disposed to be progressive since the period I have described. The forces working for improvement have not ceased to function. They have increased rather than diminished. There exists today a wide range of published information concerning the business side of government. There is, however, a constantly enlarging field in which work must be done. Growth of commerce and increasing populations have made government functions and operations more and more complex in all the larger industrial centers, making administrative control still more difficult.

Audits made by public accountants from time to time reveal that there are still backward conditions in many states and in their political subdivisions, and in still more cities. In some instances the conditions described as existing twenty years ago still prevail. Some state legislatures are indifferent about the revision of laws which hamper procedure.

An important obstacle to reorganization in state and city governments has been the cost of devising and installing the methods required, and in supervising and training the clerical staffs. Citizens have been reluctant to pay for such service, little understanding its significance and importance to them. A business corporation knows that an adequate system of accounting will pay for itself in benefits derived. It has also been the experience of cities and states that accounting investigations and reforms have, by direct savings, more than paid the entire cost. A recent audit of state departments in Pennsylvania resulted in the reclaiming to the state of uncollected items amounting to $569,498.61, and cash surpluses aggregating $2,080,835.42 held by departments, boards and commissions were disclosed as belonging to the state. The public accountants estimated further that approximately

$2,500,000 could have been collected or saved if different methods had been pursued.

There is space here for only a few illustrations of the conditions today in this country.

The state of Delaware, although next to the smallest state in size, has been progressive. It was the first to enter the Union, and it has been among the first to provide business-like conduct for its various government activities. About ten years ago public accountants were engaged for the purpose of improving the budgeting and accounting methods of the state.

Governor Buck of Delaware during the past year has undertaken one of the most progressive steps yet taken by the states to establish modern accounting methods and a more businesslike administration of the state government. At his request a survey was made by public accountants of the entire state's financial, budgeting and accounting methods for the purpose of revision. The methods installed in past years were becoming inadequate to meet the state's growth and newer standards. He saw that accurate budgets can never be prepared unless based upon accurate costs of operation, and has taken the lead in providing for the proper basis as it is provided for in industrial organizations.

With a control over this information at a central department of state accounting, and quarterly revisions of budget requirements for each institution, budget accuracy and a proper check upon expenditure will be made possible. A system of stores and property accounting is also being installed.

Although not a part of the main accounting system it is intended to provide for property depreciation upon statistical records, by means of which proper rates can be determined for the future.

It is hoped also ultimately to produce a state balance-sheet, allowing for the essential differences in the financing of governmental and industrial organizations. If scientifically and practically worked out it can not fail to present a view of the state's true financial position.

The revenue of the state has already been increased through recommendations made in the report upon the survey.

At the request of Governor Larson the state of New Jersey has had a survey made of conditions existing in that state. The survey was made by the National Institute of Public Administration, successor to the bureau of municipal research. It was recommended that many state boards and commissions be abolished as useless or practically so. Others were found to exercise duplicated functions or functions not adapted to them. There was "no real budget"; it was a mere "makeshift financial proposal." The legislature passed upon only a part of the annual budgetary requirements, the larger portion being met through "continuing and indefinite appropriations, mill levies and special funds."

It is needless to say that an entire administrative, financial and accounting reorganization was recommended and the state is expected to revise its entire budget system and other methods.

Governor Roosevelt of New York a few months ago appointed a commission to function as the "New York state economic council." Its first duties were to make a thorough survey of the entire state's administrative and financial machinery and of public expenditures, in both state and local governments, with the "object of lightening the greatest single burden in the taxpayer's cost of living." The committee has recently reported that "the public can not stand any further burden of New York state taxation. Not in recent years have taxes been such a burden as this year. While the federal government has been paying off its national debt New York has enormously increased both its debt and its budget. The increase alone of last year's budget over the previous year was one and one-half times the entire cost of running the state twenty-five years ago."

The council's preliminary investigations show that "the cost of government, federal, state and local, had grown from $135 in 1913 to $460 per family in 1929," and that "every person gives the equivalent of 6 weeks of his working year to cover this cost." "At least $10,000,000 of the state's taxes were annually wasted." To check this waste the council recommends, together with important administrative changes, the introduction of uniform cost accounting in all state departments and institutions. This committee realizes the value of accurate costs of public services as a condition precedent to accurate budgeting and control over expenditure.

The state of Utah, in the year 1924, had no budget legislation whatever. Counties, cities and school districts might voluntarily adopt budgets, which did not, however, necessarily control revenue and expenditure. Neither the state nor its governmental subdivisions kept adequate accounts. Since that period this state has passed laws which require that all cities, counties and school districts operate under a modern budget plan, and that all counties and cities of the first and second class be audited by competent public accountants. Such requirements properly carried out will bring this state a long way toward the business ideal for governments. The situation in Utah is now far more satisfactory than in a majority of the states.

To summarize it can be said that in about one-third of the states, counties and cities, revisions of old methods have taken place. In a number of them public accountants perform regular audits of the books and accounts as in industry, while in others they do so at irregular intervals.

Surveys of state, county and city conditions are quite steadily coming into favor.

Conditions Precedent to Efficient Public Administration

It is recognized by all business men, and even by government officers and employees who will not admit its practicability for public business, that it is necessary to have up-to-date, exact knowledge of all the facts pertaining to the conduct of any business organization. It is well known in modern business that complete and scientific accounting produces a knowledge of affairs which is a condition precedent to successful management.

The experiences and revelations of the past twenty years in the conduct of public administration in states and cities of the United States have demonstrated the same thing regarding management of public business. Officers have found that to direct intelligently they need to be fully informed. It is the duty of government, as in industry, to render, through its officers, the largest possible service at the most economical cost, particularly since social, welfare and commercial services rendered by states and cities have been becoming more costly each year. The problem of the day, therefore, is increased administrative efficiency.

Ex-Governor Alfred E. Smith, member of a political organization of New York heretofore vigorously opposed to the movement for the type of business administrations of state and local governments which began twenty years ago, is now an enthusiastic advocate of it. In a recent address before the five major civic organizations of New York, he stated that the biggest service they can perform is to try to get the city's and the state's business done "in a more businesslike way; in a more economical way; in a way that is more in keeping with the way ordinary private business is so successfully carried on." As an illustration he said that a five-story state office building required two years to complete as against six months to erect an eighty-five-story office building by business methods, both in the city of New York!

In advocating what I believe to be the chief requirements for the achievement of efficient public administration I do not overlook the obstacles to be met which are not met in business life. It is conceded that there are many existing laws which hamper promptness and speed and require cumbersome procedure not tolerated by business organizations. Other obstacles to progress there are, such as the protection which the civil-service system tends to give in some states and cities to those not disposed to zeal and conscientious service, and the protection afforded by political influences. Nor can the same efficiency be expected where there is the lack of motive and opportunity provided in industry, which gives greater rewards to ability and provides the stimulus of competition.

One might summarize the case as follows:

(1) State legislatures must improve their law making, and their charter revisions, to require more modern administrative organization and procedure.

(2) People must continue to be informed regarding public business and affairs. There must be enlightened public opinion concerning the primal influences and conditions surrounding public service by those who are qualified to be leaders of opinion.

(3) There should be schooling and technical training for public service.

(4) Standards of measurement should be discovered and adopted, by which some test of competency may be made in each government department and service.

(5) Rewards in remuneration for service should be given as in industry.

(6) There must be modern methods in administrative organization, financing, budgeting, purchasing, cost finding and accounting, centrally controlled.

(7) There should be current reporting of conditions and results by departments and officers, for administrative purposes and for placing before the citizens the necessary facts for sound judgment as to fidelity and efficiency in the public service.

There is still a long way to go even to approach ideals of government administration and accountancy, but the tendency is in the right direction. The "gospel of hope" is sound.

"Statistics and the Accountant"

By Harry H. Wade

Conforming to the growing realization that accountants must be equipped to advise clients intelligently, not only as to accounting practice and procedure, but also with regard to business policies, it behooves the profession to consider the various statistical devices as a possible source of guidance. "Even the casual observer of business is aware that marked changes have occurred in the kind of service performed by the public accountant and in his position in the economic structure."

Upon inspection it appears that the public accountant is in an advantageous position in reference to the utilization of statistics in his practice. Files of audit reports contain a rich mine of statistical data which might be used with great advantage to the client and without violation of confidence. Furthermore, the accountant is adapted to the intelligent compilation of the data so as to produce significant results. Public accountants tending to specialize in the field of one particular industry become a depository of detailed and trustworthy data which perhaps might yield valuable information, under statistical treatment, concerning conditions past, present, and future, in that industry. Somewhat the same type of statistical treatment might also be advantageously applied to the figures of one concern within the industry. The public accountant has also the usual outside sources of statistical data which could be used in a supplementary manner. The computation of seasonals, secular trends, cycles, correlations, and index numbers would certainly facilitate the intelligent interpretation of the accounting statements and records.

Perhaps the public accountant does not wish to increase his already numerous duties and responsibilities. It appears, however, that the public accountant is being placed in the position of business advisor more and more each year and he must face the problem of equipping himself to render this new service or acknowledge his inability, or lack of desire, to do so. Regardless of this phase of the question there are many situations wherein close association exists between orthodox accounting practice and statistics.

1. Certain phases of statement interpretation should be made in the light of trends, seasonals and cycles if such interpretation is to be significant. The question of, "How is business?" can

not be answered without consideration of what is normal. Let the accountant at least familiarize himself with the tools of statistics.

2. Discussion on such points as the effect of the decrease in the purchasing power of the dollar upon depreciation charges should be approached rather timidly by the accountant who has no knowledge of the price trend or how it is measured. Rebuttal is more effective when one is in complete mastery of the opponent's line of thought.

3. The difference in such terms as "an average of ratios" and "a ratio of averages" is most important to the accountant who, in certain situations, should use the first term and in other situations the second.

4. The statistical cost system not controlled by the general ledger is justifiably criticized by the accountant. Perhaps the cost system perfectly controlled by the general ledger is also open to criticism if it is not analyzed from a statistical viewpoint.

5. Significant standard costs require statistical analysis in their construction and use.

6. Budgetary industrial accounting based on sales, or any other basis, demands some knowledge of normals and cycles.

It is sometimes argued that fluctuating material prices make a budget impossible or valueless. On the contrary, however, the budget may, by necessitating a study of these fluctuations, enable a more intelligent purchasing programme to be devised. In any case, better results are likely to be obtained by giving study to the subject through statistical analysis.

Does the accountant consider statistics as a part of his professional knowledge? It would seem that he should. At the present time, examinations for the C. P. A. certificate generally omit any question in reference to statistics. I venture the opinion that in the near future this will not be the case.

Index numbers are among the most useful statistical tools and the main purpose of this article is to discuss briefly the problem of their construction. Originating in the analysis of commodity price statistics, their use has been extended into many fields, such as production of commodities, stock prices, and general business activity. Nevertheless, they are still used most widely in the study of commodity prices, and the illustration in this article is therefore taken from that field.

The method of constructing an index number will depend, to some extent, on the purpose it is to fulfill. There are, however, difficulties to be met which, in general, are common to all methods of construction. Professor Fisher of Yale University advocates an index-number formula termed the "ideal" which meets, substantially, all tests and is favored by many other prominent statisticians. As this type of index number, modified in some cases to suit particular situations, is so widely known and used, the following discussion will begin with that method of construction. To provide a concrete example which will serve as a basis for discussion, it is assumed that we desire an index number which will measure the change, from month to month, in the price of materials purchased for the production process of some certain industry. The following table of data presents imaginary material A to E, inclusive, with information as to the cost of material purchased in January and February together with the number of units purchased. The last column is the average cost of each unit obtained by dividing the cost of the material purchased in the month by the corresponding units.

January, 1930

Material	V_0=Value in base period Cost of purchase	Q_0=Quantity of base period Units purchased	P_0=Price in base period Average cost per unit
A	$ 10,000	5,000 gallons	$2.00 per gallon
B	30,000	1,000 tons	30.00 per ton
C	15,000	5,000 bushels	3.00 per bushel
D	80,000	800,000 feet	.10 per foot
E	5,000	2,000 barrels	2.50 per barrel
Total purchases of material in January	$140,000		

February, 1930

Material	V_1 Cost of purchases	Q_1 Units purchased	P_1 Average cost per unit
A	$ 14,400	8,000 gallons	$ 1.80 per gallon
B	16,500	500 tons	33.00 per ton
C	9,900	3,000 bushels	3.30 per bushel
D	50,000	1,000,000 feet	.05 per foot
E	5,000	2,500 barrels	2.00 per barrel
	$ 95,800		

We desire to know the prices of the materials in February, 1930, as compared to the prices of the same materials in January, 1930. It is evident that the relation of the February, 1930, prices to the January, 1930, prices would differ from the relation of February, 1930, prices to January, 1913, prices; hence it is necessary to select a base period which will produce significant results when other periods are compared to it. The year 1913 is often selected as a base to which all other years are compared, as it represents the last normal year prior to the world war, but the year 1926 has more recently been used for this purpose. Assuming data is not available for 1913 or 1926, we arbitrarily select January, 1930, as our base period. The relation, therefore, of the February, 1930, prices to the January, 1930, prices will be termed "the February, 1930, index number" with January, 1930, as a base. (The March index number would be the relation of the March prices to January prices, etc.) That is, if the prices of February, 1930, were as a whole twice as high as they were in January, 1930, the February index number is then expressed as 2, or more commonly 200 per cent. Note that the index number is a measure of the change of the prices as a group. Separate study of each material will show scatter and dispersion, the prices of some materials rising while the prices of other materials are falling. While the index number for February, 1930, might be 200, that does not mean, of course, that all materials have exactly doubled in price. Indeed the cost of no one particular material may have exactly doubled. The significance of group movement can not be determined by an independent study of each of the constituents of the group and it is only through the use of the index number that the character and meaning of the group movement can be determined.

Having decided upon the purpose of the index, selected an appropriate base period, and tabulated the data, the evident problem now becomes one of combining or averaging the prices of the five materials to obtain a representative price for the group. There are at least two difficulties which must be overcome:

1. Inasmuch as some materials are priced and purchased by the gallon, some by the bushel, some by the ton, some by the foot, it is difficult to combine them into a price that will have a meaning.

2. Materials which may be low in unit price may be of much importance, due to the quantity used, and materials much

higher in unit price may be comparatively unimportant, due to the small quantity used. Some attention must be paid to the weighting of the more important items.

Fisher's "ideal" formula, in effect, advocates the solution of the first difficulty by measuring the relative change in the price of each material. The relative change in price of material A is the relation of the unit price of February, \$1.80, to the unit price of January, \$2.00, which is expressed as $\frac{\$1.80}{\$2.00}$ or 90%.

Assuming the following symbols:

P_0 = price of the base period

P_1 = the price in the given period to be compared to the base

The relative change in prices is then expressed as $\frac{p_1}{p_0}$. This is generally termed the "price relative." Price relatives for each material are shown in table II, column 1.

The advantage of the use of the price relative is apparent. Material B advanced \$3.00 in price and material C advanced only 30 cents in price, yet each had the same price relative. This is highly desirable as the 30 cents increase in material C was just as significant as the \$3.00 increase in the price of material B. Of course, the quantity of each material used is important, but that is difficulty No. 2 which will be discussed later. Another apparent advantage of the price relative is the escape from the awkward units of tons, in the case of material B, and bushels, in the case of material C. The price relatives are on a common percentage basis and may readily be combined and yet they continue to represent adequately the price change in each commodity. While the method of using the price relative is not original with Fisher's "ideal" formula, it may be considered the first step in its construction and provides the answer to the first difficulty.

In overcoming the second difficulty we are faced with a troublesome question. We can not weight with the number of units, as these units are of different size and type. The dollar value of each material, however, is significant as a weight and is furthermore comparable as between materials. Assume, then, that we advocate weighting the importance of each price relative by the value of that material. For example, the value of material E purchased is \$5,000 each month. The price relative of material E (table II, column 1) being 80 and the value \$5,000, the weighted price relative is 80% × \$5,000 or \$4,000. With material B, however, the value in January is \$30,000, while in February it is only \$16,500. Which value is to be used in the weighting? We must admit that the use of either value to the exclusion of the other will be partial and the best solution to this question seems to lie in constructing:

1. An index number for February based upon January and using January's values as weight. We term this "index number A."
2. An index number for January based upon February, using February values as weight. This relation is then reversed to obtain the relation of February prices to January prices and the resulting index number will be termed "index number B."
3. Index numbers A and B are then averaged to determine the correct index number.

While this at first may appear to be a proposal to have two wrongs make a right, there is, upon investigation, some justification for this procedure. The errors in the two incorrect index numbers are, in effect, inherently counteracting, and tend to produce a correct index number when properly averaged.

TABLE II. (Index number A)

(1) Price relative for Feb. with Jan. as base $\frac{p_1}{p_0}$	(2) Weights, Jan. value "p_0q_0"	(3) Weighted price relative $\frac{p_1}{p_0} \times p_0q_0 =$ "p_1q_0"
A— 90 (in %)	\$10,000	\$9,000
B—110	30,000	33,000
C—110	15,000	16,500
D— 50	80,000	40,000
E— 80	5,000	4,000
	$S=$140,000	$S=$102,500

In table II, column (2) are the weights based on January values, used to impart to the price relatives their importance in the group.

Table II, column (3)—the product of columns (1) and (2) gives the weighted relatives. The total of column 3 is then divided by the total of column 2 to give the average of the weighted relatives or the February index number based upon January, using January's values as weights. This index number A is, of course, as yet incorrect as it has not included the influence of the February values.

Assume the following symbols:

P_1 = price in February
P_0 = price in January
q_1 = quantity in February
q_0 = quantity in January
S = Summation or total

The procedure just discussed may be expressed algebraically as follows:

$\frac{p_1}{p_0}$ = price relative of each material (table II, column 1)

p_0q_0 = value of each material in January (table II, column 2)

$\frac{p_1}{p_0} \times p_0q_0 = p_1q_0$ = weighted price relative (table II, column 3)

$S(p_1q_0)$ = total of weighted relatives

$S(p_0q_0)$ = total of values used as weights

$\frac{S(p_1q_0)}{S(p_0q_0)}$ = Index number A for February based upon January and using January values as weights.

Substituting the figures as shown in table II in the above formula, index number A is determined as follows:

$$\frac{S(p_1q_0)}{S(p_0q_0)} = \frac{102{,}500}{140{,}000} = \underline{\underline{73.2}} = \text{index number A (in \%)}$$

73.2 + is therefore the relation of the February prices of the five materials, as a group, to the January prices of these same materials, January being assumed as 100.

The final formula $\frac{S(p_1q_0)}{S(p_0q_0)}$ suggests a short cut in the computations which is in reality the procedure Fisher describes.

Since p_1 is the price in February, and q_0 is the quantity purchased in January, the expression, p_0p_1, is the amount the units purchased in January would have cost if they had been purchased at February prices. The short cut procedure therefore for obtaining index number A is then:

1. Multiply each January quantity by the corresponding February price;
2. Take the total of these hypothetical values;
3. Divide this total by the sum of the actual values in January.

This method is termed "an aggregative method" as it gives an index number using total or aggregate values.

If we construct similarly an index number for January based upon February and using February values as weights, the price relative will be expressed as, $\frac{p_0}{p_1} \times p_1q_1$, which is equivalent to p_0q_1.

The total of the weighted relatives, $S(p_0q_1)$ divided by the total of the weights, $S(p_1q_1)$, is therefore expressed as $\frac{S(p_0q_1)}{S(p_1q_1)}$. To convert this into a February index number based upon January, we must invert it as follows: $\frac{S(p_1q_1)}{S(p_0q_1)}$.

This formula suggests the short cut procedure advocated by Fisher for index number B as follows:

1. Add the values of material purchased in February.
2. Divide the total obtained in (1) by the value of materials purchased in February if they had been purchased at January prices.
3. The result of this division is index number B which shows the relation of February prices to January prices using February values as weights.

TABLE III. (Index Number B)

(1) Price relative for Jan. with Feb. as base "$\frac{p_0}{p_1}$"	(2) Weights, Feb. values per M dollars "p_1q_1"	(3) Weighted price relative $\frac{p_0}{p_1} \times p_1q_1 =$ "$p\ q$"
A—111.11 (in %)	$14,400	$16,000
B— 90.91	16,500	15,000
C— 90.91	9,900	9,000
D—200.00	50,000	100,000
E—125.00	5,000	6,250
	S=$95,800	S=$146,250

Substituting figures shown in table III in the formula $\frac{S(p_1q_1)}{S(p_0q_1)}$ index number B is obtained as follows:

$$\frac{95{,}800}{146{,}250} = \underline{65.5} = \text{index number B}$$

Index number A (73.2), and index number B (65.5), should be the same, as they both measure the change in February prices relative to January prices as 100. The fact that they differ is due to the error inherent in each because of the weights used. Index number A used January weights exclusively and index number B used only the February weights. The true index number, or Fisher's "ideal," is then obtained by taking an average of 73.2 and 65.5 (preferably a geometric average), as follows:

$$\sqrt{73.2 \times 65.5} = \underline{\underline{69.2}}$$

The results of the computations now indicate that February prices of the five materials as a group, and in consideration of the relative importance of each material, were 69.2 % of January prices.

Fisher's "ideal" formula is expressed algebraically as follows:

$$\sqrt{\frac{Sp_1q_0}{Sp_0q_0} \times \frac{Sp_1q_1}{Sp_0q_1}}.$$

From the accountant's viewpoint this immediate relation of February prices to January prices, as just determined, may be of no particular interest. The accumulation of such information over a period of years, should be of great interest, if only to provide background for intelligent discussion in audit reports. In time it will possibly lend itself to interpretation which will assist materially in answering such questions as:

1. In this industry, are prices of materials tending to increase or decrease in the long run? It will probably develop that while the index number varies from month to month and from year to year, a certain long-time tendency to increase or decrease will be evident. This long-time tendency, termed "secular trend" may be conveniently measured by statistical methods.
2. Are prices for these materials on the average higher in February than in July or December? The effect of the seasons on the prices of the various materials may be determined and a seasonal index prepared.
3. Eliminating the effect of any long-run trend or the effect of seasons, is January, 1930, at the bottom or the top of the business cycle? The construction of the cycle for this industry permits of possible correlation with the cycle of a related industry with possibilities for valuable forecasting.

A modification of Fisher's "ideal" is the use of fixed weights in the aggregative form. In reference to this particular illustration, it is simply the relation of the hypothetical value of material purchased in January, at the February prices, to the actual values of the same materials in January. This is the index number referred to as A and is expressed as $\frac{S(p_1q_0)}{S(p_0q_0)}$. While this construction is not quite correct, it is reasonably so and generally safe to use. The computation of the index number is made conveniently by this formula, and without the necessity of any information as to February quantities. In place of using January quantities "q_0" very frequently a quantity is substituted which is representative of a period of time or an ideal production programme.

Montgomery believes that an auditor who expects to perform a considerable amount of investigating in the course of his practice will find it useful to compile statistics in various instances. Some people may feel that statistical information is interesting and all very well, if one has the time and money to have it prepared. They do not consider the cost of *not* having it. There is available a constantly increasing quantity of informative business statistics compiled by government bureaus, chambers of commerce, bureaus of research, financial institutions, trade associations and manufacturing groups. The auditor should take advantage of the comparison which these sources of information afford as the knowledge gained may be of great aid in reviewing the client's operations.

The accountant has long been familiar with statistics in a general way, but the subject is deserving of more serious attention and greater utilization.

Accounting in Germany*

By Kurt Schmaltz

Two facts have recently brought new impetus to the discussion of accounting in Germany. The first is the draft of a new corporation law and the second is the establishment of the Institut für Revision- und Treuhandwesen,† which is faced with a future problem similar to that of the American Institute of Accountants.

1. Das Institut für Revision- und Treuhandwesen

The collapse of German business during the inflation and the subsequent rationalization after the stabilization of the money unit showed more and more forcibly the need for real experts in economic matters. The problems to be solved were no longer purely technical, such as the audit of the books and of the balance-sheet, but to an increasing degree the auditor and the Treuhandgesellschaft were drawn into tax conferences, into the reorganization of costing and industrial accounting, and finally into questions of organization.

At this time, there arose discussion of the question of obligatory, legally regulated, verification of balance-sheets as it exists in England but not in the United States. In the hard times which have lasted from 1924 even up to the present, many firms went into bankruptcy, among them the enormous Stinnes consolidation. As a consequence, ever more vigorous publicity was directed through the commercial press to the idea that corporations be required to publish better business reports and that the balance-sheets be audited by independent accountants. The fraudulent bankruptcy of the great insurance company, Frankfurter Allgemeine Versicherungs Aktiengesellschaft, the directors of which falsified the balance-sheet for years and speculated with the funds of the company, gave increasing support to the idea of the obligatory audit of balance-sheets.

There is yet another point of view to mention. In the period after 1924, the municipalities had carried on expansion in public

* Translated by Catharine De Motte Greene.

† "*Institut für Revision- und Treuhandwesen*" may be roughly translated as Institute of Auditors and Trustees. However, *Treuhand* is used in a somewhat more extensive sense in Germany than is implied by our word trustee. Cf. *Proceedings of the International Congress on Accounting*, New York, 1929, p. 110. Further instances of the use of this word, pp. 16ff, 99, and 106. (Translator's note.)

construction and undertakings which often went beyond their actual financial strength. The result of this was that to an increasing extent they were obliged to finance permanent improvements with temporary loans and thereby became involved in ever greater difficulties. Although the condition today has passed the critical point, there is a plan to establish in the near future a yearly obligatory audit of the books of municipal administrations.

Under the pressure of this discussion, the minister of justice took up the question of reform of German corporate organization and the proposed law, which will be discussed later, provides for an obligatory verification of the balance-sheets of corporations by independent auditors.

This required audit of the balance-sheet should not be of a purely formal nature, should not limit itself to a reconciliation between the balances of the ledger and the balance-sheet; it should undertake complete verification of the accounts, including valuation. The auditors must be chosen by the stockholders of the company. The audit itself is regarded as the concern of the company; therefore the report is submitted to the managing board (Vorstand) of the company and the members of the supervisory board (Aufsichtsrat) have the right of inspection. The auditor's report may not reach the stockholders but the managing board is responsible for reporting to the stockholder whether or not the auditor has raised fundamental objections.

The fear had been expressed in Germany that there might not be available a sufficient number of qualified auditors to handle these problems. In this way there arose the idea of creating a completely new professional rank, with substantially higher requirements, for which the new name "Wirtschaftstreuhänder" has been proposed. The several ministries of the Reich, the chambers of commerce of the states, the Conference of German Industrialists (Deutscher Industrie- und Handelstag) as the central organ of the chambers of commerce, and the department of commerce of Prussia (the largest state in Germany) held conferences to decide the requirements which are to determine the preparation for the future Wirtschaftstreuhänder. The deliberations are not yet completed but will surely lead, shortly, to a special law.

In the near future, then, these authorities will create a so-called board of admissions for Wirtschaftstreuhänder before which those who wish to win the title of Wirtschaftstreuhänder will have to undergo an examination.

To strengthen this development, the influential German Verbände der Revisoren und Treuhandgesellschaften which always take a leading part in the discussion of these questions have established the Institut für Revision- und Treuhandwesen already mentioned, into which only such auditors can be elected as have previously been admitted as Wirtschaftstreuhänder by the official body which is yet to be set up.

So much for the development up to today. It evidently runs parallel to that in the United States in spite of the absence of the obligatory balance-sheet there. However, the professional standing of accountants will be improved if Germany also requires an education at the Handelshochschule as well as the customary practical training with a practising accountant. For the transition period, of course, special regulations will be provided to give the older accountant who is already experienced in active practice an opportunity to enter the new rank of Wirtschaftstreuhänder.

The Draft of a New German Corporation Law

The reasons for the need of a new German corporation law have already been mentioned in part. In part they lie also in the necessity of adapting the technique of financing to systems of law outside Germany, particularly to that of the United States. Let it be recalled that up to now the corporate organization in Germany has been regulated by the general commercial code. The plan is now to withdraw from the commercial code the law of corporations, which will be regulated by a special statute. Naturally it is not possible here to go into the new draft completely. I may touch on only the points that are of special importance to accountancy and the acoountant.

Financing. The two-fold division of stock into common and preferred shares remain unchanged. These stocks must have a nominal value and may not be issued below par. There was a general effort to secure provision for the issue on no-par stock but this was unsuccessful.

The provision for the so-called "genehmigtes Kapital" which corresponds to authorized capital stock in the United States is new. Also a so-called "contingent" increase in capital will be provided for the case of the issue of convertible bonds, for later mergers, or for shares with subscription or exchange rights. Such an innovation was urgently needed in Germany because until now it has been impossible to issue convertible bonds under the law except with the help of complex and strained legal interpretations.

Preferred shares without voting rights or with limited voting rights, which have not been permitted by German law until now, have been introduced. Even though they were used only lately in the Siemens bonds which were also floated in the United States, they were used only by circumvention and not without strong opposition. This will be remedied by the new law.

Reserved or provisional shares (Vorratsaktien) * are forbidden and heavier limitations are proposed for shares with multiple voting rights.

Balance-sheet and profit-and-loss account. In contrast to the old commercial code which gave no directions for the balance-sheet and prescribed the method of valuation only to a limited extent, the draft of the new law provides absolutely definite instructions for the structure of the balance-sheet and the profit-and-loss account.

The relation to subsidiaries is justly considered of especial importance. Apart from this consideration, the draft has dispensed with narrower prescriptions for consolidated balance-sheets because it is believed that this question needs further clarification.

Arrangement of the balance-sheet

The following is the basic arrangement of the published balance-sheet if the business does not use a yet more detailed arrangement:

I. Subscriptions in arrears to the original capital stock.
II. Fixed assets.
   1. Real estate, exclusive of buildings.
   2. Buildings.
      (a) Office or shop building and dwelling houses.
      (b) Factory building and other buildings.
   3. Plant and equipment.
   4. Tools, factory and office fixtures.
   5. Concessions, patents, licences, trade marks and similar rights.

* See *Entwurf eines Gesetzes über Aktiengesellschaften und Kommanditgesellschaften auf Aktien* page 119.

III. Participation in subsidiaries including such securities as are defined as constituting participation.

Holding shares whose par value equals one-fourth of the par value of the original capital stock of a corporation or holding one-fourth of the shares (Kuxe) of a cost-book mining company (Gewerkschaft) constitutes participation.

IV. Current assets.

1. Raw materials, supplementary materials and supplies.
2. Work in process.
3. Finished goods, merchandise.
4. Securities, with a detailed statement of the specific shares, except those to be entered under III or IV, 10.
5. Mortgages and other securities based on land, Grundschulden, Rentenschulden.
6. Prepayments made by the company.
7. Trade debtors.
8. Claims against subsidiaries.
9. Claims on members of the managing board, the supervisory board and salaried officers.
10. Bills of exchange and cheques.
11. Cash, including balances in banks of issue and postal deposits.
12. Other bank deposits.

V. Deferred charges to expense.

On the credit side, there must be shown among other items, the liabilities classified as follows:

1. Loans to the company listed according to their hypothecated security.
2. Mortgages on the real estate of the company, Grundschulden, Rentenschulden. Mortgages which serve as security for loans and Sicherungshypotheken, a type of obligation which is not customary in the United States, are excluded from this heading.
3. Prepayments by customers.
4. Trade creditors.
5. Obligations to subsidiaries.
6. Obligations to members of the administration and to salaried employees.
7. Obligations for the acceptance or issue of bills of exchange.
8. Obligations to banks.

In the case of fixed assets, both the additions to and the deductions from the several accounts are to be shown. The balancing of claims against debts is not permissible; the same is true of mortgage obligations not based on a personal claim. Reserves for replacement, other reserves and valuation accounts may not be shown under the liabilities of the company. In so far as claims or obligations fall under several headings, their interrelation with other entries is to be made clear under the heading where they are exhibited. Commitments on account of surety bonds, guaranteed drafts or guaranty contracts are to be indicated in full on the balance-sheet together with the equivalent claims to recourse on the opposite side.

Arrangement of the profit-and-loss account

In this case also the prescribed arrangement applies only when the business does not employ a more detailed scheme or when the peculiar nature of the undertaking does not require a divergent scheme. Thus banks, for example, would have to use another arrangement. Aside from these instances, at least the following facts are to be shown:

1. Wages and salaries.
2. Taxes for social purposes.
3. Depreciation of plant.
4. Other depreciation.
5. Interest—excess of interest expense over income.
6. Property tax of the company.
7. All other expenses with the exception of expenses for raw material, supplementary material and supplies, or, in the case of commercial enterprises, with the exception of cost of merchandise purchased.

On the side of revenue:

1. Revenue from participations.
2. Interest—excess of income over expense—and other capital revenue.
3. Unusual revenue and donations.

It is not possible to add here a detailed review or criticism; in contrast to the usual practices in Germany at present, these regulations, if they become law, signify vast improvement. The American reader, who is accustomed to his well-arranged profit-and-loss account, will miss first of all the showing of income from sales. Actually, the arrangement in the present form is a compromise between the detailed statement of all income figures which is usual in the United States and the showing of a net figure for income which is usual in Germany. It is not impossible that the demand for the publication of the figures for operations will yet be taken up, especially as the point plays an important part in the public discussion on all sides.

Rules for valuation. It is a special merit of the proposed law, in contrast to the provisions of the old statute, that it has given precise instructions for valuation. In particular, the following is prescribed in regard to valuation for the balance-sheet:

1. Plant, securities and other objects of value which are permanently connected with the operations of the business may be stated, without consideration of a lower value, at the purchase price or production cost if the probable loss in value which results from distributing the cost of the asset through its entire life is brought into the statement as a deduction or in the form of a valuation account. In calculating production cost, depreciation may be taken into consideration to a reasonable extent and a reasonable share of the operative and management costs which applies to the period of the production may be allowed for; selling costs do not rank in this case as part of the operative and management costs.

2. Merchandise, securities and other objects of value which are not permanently connected with the operation of the business may not be shown at a higher value than the purchase price or production cost. Production costs are calculated as for permanent assets. If the purchase price or production cost is higher than the market or exchange price on the day of the balance-sheet, market or exchange price is to be used. In the case where there is no established exchange or market price, if the purchase or production price is higher than the value to the business which may be attributed to the asset, this latter value is to be used.

3. Debts of the company, listed under liabilities are to be appraised at the amount to be repaid. If the repayment amount is higher than the price at which they were issued, the difference may be shown separately under the assets. The debit account hereby set up must be written off yearly by amortizing it over the life of the debt or in any case in such a way that the debit account is written off by maturity.

4. The costs of organization may not be set up as assets.

5. Entries may not be made among the assets for goodwill or going concern value. If the actual payment for the purchase of an enterprise exceeds the sum of the values of the individual assets as ascertained at the moment of purchase, the difference may be shown separately among the assets. From the debit entry thus set up there must be written off yearly at least an amount corre-

sponding to the decrease in value which has taken place during the balance-sheet period.

6. The amount of the share capital is set up under the liabilities at the nominal figure.

The American reader will find a precise basis and definition of the well-known rule "cost or market, whichever is lower." Here is a clear definition of the concept of cost, over which there has been so much discussion. Cost includes wages and materials with the overhead costs of management and administration, but not the selling costs. It can even be said that the draft includes under cost the total costs, exclusive of selling costs.

The provision that the organization expenses may not be shown as assets and that goodwill may be included only when it originates through the purchase of an enterprise as a whole has remained the same. American practice proceeds somewhat differently here also. According to German law, capitalizing goodwill without the purchase of the enterprise as a whole is not permissible.

The question of secret reserves, so important in Germany in contrast to the United States, has become so regularized that these reserves are allowed now as previously, but they may not appear in the form of fictitious or fabricated liabilities.

Supplementary Instructions on Business Reports

The proposed law requires supplementary statements in the business reports. The corporation is required to report on its relations to other companies if it is decisively influenced by such relations. This applies especially to relations with subsidiaries. Further, it is to be stated whether and by what office an audit of the yearly closing of the books has been made and whether the audit raised any essential objections. Finally, the following statements are to be made in the business reports:

1. Stocks issued before or after the law goes into effect which have been taken over from the shareholder as promoter or underwriter or in the exercise of a subscription right for the account of the corporation, the amount realized on these stocks and the use made of the proceeds.
2. Stocks with suspended voting rights (gebundene Aktien), their amount and the use made of the proceeds.
3. In the case of the issue of shares in exchange for other securities, the amount of shares acquired in the past fiscal year.

4. The authorized capital stock.
5. Participation certificates (*Genuszscheine*) issued before or since the law went into effect.
6. The maturity date of long-term obligations.
7. Indorsement relationships, including hypothecations and Sicherungsübereignungen, which are not evident in the balance-sheet and other legal relationships not taken into consideration in the balance-sheet, according to the rights or obligations that exist or will arise for the corporation.
8. Loss that will probably result from the later completion of sale or purchase commitments or in any other way.
9. The association of the corporation with syndicates and cartels, business agreements and similar affiliations.
10. Occurrences of particular significance since the end of the period of the report.

I must forego a review of the other new regulations at this time. The American reader will be able to perceive from the above review of the text that the new regulations are welcomed in Germany in spite of their many defects. Public opinion must first occupy itself with the draft and then a second, more conclusive draft will be laid before the reichstag for passage.

Students' Department

H. P. BAUMANN, *Editor*

AMERICAN INSTITUTE EXAMINATIONS

(NOTE.—The fact that these answers appear in THE JOURNAL OF ACCOUNTANCY should not cause the reader to assume that they are the official answers of the board of examiners. They represent merely the opinions of the editor of the *Students' Department*).

EXAMINATION IN ACCOUNTING THEORY AND PRACTICE—PART I

November 13, 1930, 1 P. M. to 6 P. M.

The candidate must answer the first three questions and one other question.

No. 1 (35 points):

From the information following, prepare:

(a) Journal entries, recording the purchase of the investments at April 1, June 30 and September 1, 1929.

(b) Statement showing amount of goodwill and capital surplus arising from consolidation, as at December 31, 1929.

In making an audit of the books of account and records of the Smith Theatre Company and its subsidiaries—the Brown Pictures, Incorporated, and the Green Amusement Company—for the year ended December 31, 1929, you find the following conditions:

The Brown Pictures, Incorporated (hereafter alluded to as "the corporation"), was organized January 1, 1929. The incorporators, owners of theatres in favorable locations, leased their theatres, with equipments, to the corporation for a period of twenty years commencing January 1, 1929, and received, in consideration therefor, all the capital stock of the corporation in addition to an annual fixed rental payable by the lessee in equal monthly instalments in advance on the first day of each month.

The capital stock of the Brown Pictures, Incorporated, consists of 10,000 shares of no par value and was issued, according to the articles of incorporation, for leaseholds appertaining to the leased theatres, appraised by the incorporators at date of organization at $120,000. With reference to the issue of the stock, you find the following journal entry on the books of the corporation:

Leaseholds	$120,000	
To capital stock		$120,000

You also find that during the year 1929, the corporation has amortized the leaseholds by charges to profit-and-loss account on the basis of the lives of the leases.

On April 1, 1929, the Smith Theatre Company purchased from individual stockholders of the Brown Pictures, Incorporated, 5,000 shares of the capital stock of that corporation for $70,000 in cash, and on September 1, 1929, acquired from the remaining stockholders the balance of the stock, which was paid for in the following manner:

(a) 100 shares of the Smith Theatre Company's no-par-value common stock held in the treasury, purchased at $35 a share, the market value being $45.

(b) A sum in cash equal to the increase in the rental under an amendment of the lease of the Star Theatre, one of those originally leased to the Brown Pictures, Incorporated, which had been rented by the Brown Pictures, Incorporated, at date of organization from the stockholders now desirous of selling their stock. The original Star Theatre lease agreement provided for a rental of $60,000 per annum and stipulated that the corporation deposit with the lessors the sum of $60,000 bearing interest at 6 per cent. per annum, which was to be applied as rental for the last year of the term. The deposit was made by the corporation on January 1, 1929. The amended lease agreement contained the following provisions:

Term—October 1, 1929, to December 1, 1948
Rental—$72,000 per annum from Oct. 1, 1929, to Sept. 30, 1939
$70,000 per annum from Oct. 1, 1939, to Dec. 1, 1947
(payable as in the case of the first lease)
$60,000 for the balance of the term, covered by the lease deposit originally made by the lessor.

The original lease was canceled and settlement for the lease deposit was made in cash.

(c) Cancellation of the interest accrued on the lease deposit from January 1, 1929, to September 1, 1929, the amount thereof to be credited to the Brown Pictures, Incorporated.

The Green Amusement Company was organized January 1, 1929, with an authorized capital stock of 1,000 shares of no par value issued for cash, in amount $35,000. This company was indebted to the Smith Theatre Company on a note of the face value of $15,000. Owing to the unsatisfactory financial condition of the Green Amusement Company, the Smith Theatre Company accepted the note only after endorsement thereof by 95 per cent. of the stockholders of the Green Amusement Company.

With consent of the Smith Theatre Company, the endorsers of the note, anxious to free themselves of their contingent liability, which was likely to become actual, entered into an agreement on June 30, 1929, with the Brown Pictures, Incorporated, whereby they sold to that corporation all their capital stock of the Green Amusement Company upon condition that the Smith Theatre Company cancel the note and that the Brown Pictures, Incorporated, assume the liability therefor on open account.

The books of the respective companies were closed quarterly. An analysis of the surplus accounts at December 31, 1929, was as follows:

	Smith Theatre Co.	Brown Pictures, Inc.	Green Amusement Co.
Balance—January 1, 1929 (as certified by you)	$ 840,000		
Profits or losses (*):			
3 months ended Mar. 31, 1929	150,000	$120,000	$ 5,000*
3 " " June 30, "	140,000	130,000	9,000*
3 " " Sept. 30, "	175,000	135,000	12,000*
3 " " Dec. 31, "	178,000	140,000	15,000*
Balances—December 31, 1929	$1,483,000	$525,000	$41,000*

The capital stock of the Smith Theatre Company consists of 10,000 shares of no-par-value common stock, issued at $15 a share.

Wherever it becomes necessary, in your calculations, to assume an interest rate, use 6 per cent. per annum.

The profits or losses for the three months ended September 30, 1929, may be assumed to have occurred in equal amounts by months.

Given:

The present worth of an annuity payable $1.00 monthly for ten years, the first payment to be made in one month, is $90.075. The present worth of an annuity payable $1.00 monthly for eight years and two months, but with the first payment of the annuity beginning in ten years, or directly after the former annuity ceases, is $42.500083.

Solution:

The main difficulty that the candidate might expect to find in solving this problem is that of organizing the facts given—especially those pertaining to the book values of the subsidiaries at the different dates of purchase by the major and minor holding companies. The Smith Theatre Company (the major holding company) purchased one-half of the outstanding stock of the Brown Pictures, Incorporated (the minor holding company) on April 1, 1929, and the remaining one-half, on September 1, 1929. Between the dates of these two purchases, June 30, 1929, the Brown Pictures, Incorporated, purchased the entire outstanding stock of the Green Amusement Company, which purchase gave rise to capital surplus of $6,000.

At September 1, 1929, the Green Amusement Company had an accumulated loss of $22,000, of which $8,000 had been incurred since June 1, 1929, the date on which it was taken over by the Brown Pictures, Incorporated.

The candidate is faced immediately with the questions—What, if any, effect has the capital surplus of $6,000 upon the book value of the Brown Pictures, Incorporated, which book value determines the goodwill or capital surplus arising from the purchase of the second 5,000 shares of the Brown Pictures, Incorporated by the Smith Theatre Company? What, if any, effect has the loss of $8,000 upon the book value of the Brown Pictures, Incorporated?

What confusion may arise in the mind of the candidate may be dispelled by setting up a schedule, to ascertain, first the amount of the consolidated surplus at December 31, 1929, and second, to distribute the remaining profits or losses to the different purchases.

STATEMENT SHOWING THE COST OF THE 5,000 SHARES OF STOCK OF THE BROWN PICTURES, INCORPORATED PURCHASED SEPTEMBER 1, 1929, BY THE SMITH THEATRE COMPANY

(a) The 100 shares of treasury stock of the Smith Theatre Company given as part payment for the stock of the Brown Pictures, Incorporated, is recorded at the market value of $45 per share, as this value more clearly reflects the cost of the stock purchased to the Smith Theatre Company. The excess of the market value over the cost ($35) of such treasury stock is credited to premium on treasury stock on the books of the Smith Theatre Company.

Treasury stock (100 shares):		
Cost	$ 3,500.00	
Premium	1,000.00	
Market value		$ 4,500.00

(b) The cash payment equal to the increase in the rental under an amendment of the lease of the Star Theatre, exclusive of the lease deposit of $60,000 is computed as follows:

For the period from October 1, 1929 to September 30, 1939—(10 years):

ANALYSIS OF SURPLUS ACCOUNTS

Showing the Consolidated surplus and apportionment to the purchases of stock, of the subsidiary companies

	Applicable to purchase dated				Total		
	Consolidated Surplus	April 1, 1929	June 30, 1929	September 1, 1929	Smith Theatre Company	Brown Pictures Incorporated	Green Amusement Company
Smith Theatre Company:							
Balance—December 31, 1929	$1,483,000.00				$1,483,000.00		
Brown Pictures, Incorporated:							
Profits for 3 months ended:							
March 31, 1929		$60,000.00		$ 60,000.00		$120,000.00	
June 30, 1929	65,000.00			65,000.00		130,000.00	
Profits for 2 months ended:							
September 1, 1929	45,000.00			45,000.00		90,000.00	
Profit for 1 month ended:							
September 30, 1929	45,000.00					45,000.00	
Profit for 3 months ended:							
December 31, 1929	140,000.00					140,000.00	
Green Amusement Company:							
Losses for 3 months ended:							
March 31, 1929			$ 5,000.00*				$ 5,000.00*
June 30, 1929			9,000.00*				9,000.00*
Loss for 2 months ended:							
September 1, 1929	4,000.00*			4,000.00*			8,000.00*
Loss for 1 month ended:							
September 30, 1929	4,000.00*						4,000.00*
Loss for 3 months ended:							
December 31, 1929	15,000.00*						15,000.00*
Total	$1,755,000.00	$60,000.00	$14,000.00	$166,000.00	$1,483,000.00	$525,000.00	$41,000.00*

Rental per annum:		
New provision	$72,000.00	
Old lease	60,000.00	
Increase per annum	$12,000.00	
Increase per month	$ 1,000.00	
As the present value of an annuity payable $1.00 monthly for ten years, the first payment to be made in one month, is $90.075, the present value of such an annuity of $1,000 is, therefore, $1,000 x $90.075 or		$90,075.00
For the period from October 1, 1939 to December 1, 1947—(8 years and 2 months):		
Rental per annum:		
New provision	$70,000.00	
Old lease	60,000.00	
Increase per annum	$10,000.00	
Increase per month	$ 833.33	
As the present worth of an annuity payable $1.00 monthly for eight years and two months, but with the first payment of the annuity beginning in ten years, or directly after the former annuity ceases, is $42.500083, the present value of such an annuity of $833.33 is, therefore, $833.33 x $42.500083 or		35,416.59
Cash payment, exclusive of lease deposit ...		$125,491.59
(c) Cancellation of the interest accrued on the lease deposit from January 1, 1929, to September 1, 1929, the amount thereof credited to the Brown Pictures, Incorporated		
Interest on $60,000 for eight months at 6% per annum		$ 2,400.00
Total cost of 5,000 shares purchased, September 1, 1929		$132,391.59

JOURNAL ENTRIES
TO RECORD THE PURCHASE OF THE INVESTMENTS
AT APRIL 1, JUNE 30, AND SEPTEMBER 1, 1929

On books of Brown Pictures, Incorporated, June 30, 1929:		
Investment—Green Amusement Company.....	$ 15,000.00	
Accounts payable—Smith Theatre Company		$ 15,000.00
To record the purchase of the entire authorized capital stock of the Green Amusement Company (1,000 shares of no par value).		
On books of the Smith Theatre Company April 1, 1929:		
Investment—Brown Pictures, Incorporated....	70,000.00	
Cash..................................		70,000.00
To record the purchase of 5,000 shares (10,000 shares authorized and outstanding) of no-par value stock of Brown Pictures, Incorporated.		
September 1, 1929		
Lease deposit.............................	60,000.00	
Investment—Brown Pictures, Incorporated....	132,391.59	
Treasury stock..........................		3,500.00
Premium on treasury stock................		1,000.00
Cash..................................		185,491.59
Interest accrued on lease deposit (Brown Pictures, Incorporated).................		2,400.00
To record the purchase of the remaining 5,000 shares of no-par-value stock of Brown Pictures, Incorporated, the receipt of lease deposit, and the accrued interest thereon (See schedule).		

STATEMENT SHOWING THE AMOUNT OF CAPITAL SURPLUS
ARISING FROM CONSOLIDATION, AS AT DECEMBER 31, 1929

Purchase of Brown Pictures, Incorporated:		
First purchase—April 1, 1929		
Book value of Brown Pictures, Incorporated:		
Capital stock..........................	$120,000.00	
Profits for the 3 months ended March 31, 1929............................	120,000.00	
Total book value (10,000 shares) ...	$240,000.00	
Book value of 5,000 shares purchased—(½ of $240,000.00).....................	$120,000.00	
Cost of 5,000 shares purchased............	70,000.00	
Capital surplus.......................		$ 50,000.00

Second purchase—September 1, 1929		
Book value of Brown Pictures, Incorporated:		
Capital stock	$120,000.00	
Profits for the 3 months periods ended:		
March 31, 1929	120,000.00	
June 30, 1929	130,000.00	
Profits for the months of July and August, 1929—(⅔ of $135,000.00)	90,000.00	
Total	$460,000.00	
Deduct:		
Share of loss of Green Amusement Company since date of purchase by Brown Pictures, Incorporated, June 1, 1929—(⅔ of $12,000.00)	8,000.00	
Total book value (10,000 shares)	$452,000.00	
Book value of 5,000 shares purchased—(½ of $452,000.00)	$226,000.00	
Cost of 5,000 shares purchased	132,391.59	93,608.41
Capital surplus arising from the purchase of the entire outstanding stock of the Brown Pictures, Incorporated		$143,608.41
Purchase of Green Amusement Company:		
Book value of Green Amusement Company, as at June 30, 1929:		
Capital stock	$ 35,000.00	
Deficit	14,000.00	
Total book value	$ 21,000.00	
Cost of purchase (represented by assumption of liability)	15,000.00	
Capital surplus arising from the purchase of the entire oustanding stock of Green Amusement Company		6,000.00
Total capital surplus arising from consolidation		$149,608.41

No. 2 (30 points):

Following is the trial balance of the recently organized Glenview Golf Club as at December 31, 1929:

	Dr.	Cr.
Cash in bank	$ 7,225	
Accounts receivable, members	11,160	
Buildings	54,500	
Equipment	8,500	
Gold-course construction	130,000	
Labor	26,285	

Golf-course supplies and expense	$ 12,446	
General expense	4,213	
Interest paid	5,617	
Rent	6,000	
Commissions—soliciting membership	1,100	
Notes payable—bank		$ 10,000
Accounts payable		2,341
Entrance fees		146,250
Dues		22,950
"Green" fees		5,015
Taxes on dues and entrance fees		490
Entrance fees underwritten		80,000
	$267,046	$267,046

A proprietary membership in the club costs $1,000, plus $100 tax.

An analysis of entrance-fees account shows that it includes $110,000 paid in, fully paying 110 memberships, and $36,250 collected from 60 members. The balance due from these 60 members, plus the tax thereon, is secured by notes for their original unpaid balance. These notes are on hand but not entered.

In September, 1929, a special committee, appointed for the purpose, handed in a statement with a list of 80 members, each of whom promised to obtain a new member and to advance the entrance fee of such member at once, subject to repayment when the new member paid in his fee; accordingly, the following entry was then made:

Accounts receivable, members	$80,000	
To entrance fees underwritten		$80,000

Of the above $80,000, $70,000 had been collected from the underwriters at December 31, 1929. Nothing had been repaid to the underwriters on account of new members, although 10 such new members had been elected in December and had paid in $8,800 in cash and signed notes for $2,200 for entrance fees and taxes.

Dues are $200 a year, plus 10 per cent. tax, payable quarterly in advance, and have been chargeable and entered on April 1, July 1 and October 1, 1929.

Included in "accounts receivable, members," are accounts totaling $330 for dues and taxes against 2 members who have been delinquent for nine months, and accounts aggregating $770 for dues and taxes of 8 other members. Collections can be enforced only by deduction from the proceeds of sale of such memberships after the complement of 300 members is attained.

The building account includes:

Caddy and locker house	$10,000
Architect's plans for a club house, discarded as proposal appeared too expensive	3,000
Architect's fees for new house	1,500
Payments under a cost-plus contract for the club house (under construction December 31, 1929) with a guaranteed maximum cost of $50,000	40,000
	$54,500

The golf course was finished and opened on June 30, 1929. At that date, the club being obliged to maintain the course since the original construction contract was completed, the operating accounts stood as follows:

Debits—	
Labor	$10,116
Golf-course supplies and expense	4,539
General expense	916
Interest paid	2,890
Rent	6,000
Credits—	
Dues	5,950

The club leases its real estate, for which it pays an annual rental of $6,000, payable January 1st in advance.

The estimated life of the equipment is five years from June 30, 1929.

Of the liability on the books for taxes on dues, $390 is now payable to the collector of internal revenue, representing collections in December.

Prepare the journal entries which should be made on the books as of December 31, 1929, and January 1, 1930, disregarding closing entries, as the fiscal year ends June 30th.

Submit, also, statement of assets and liabilities as of the opening of business on January 1, 1930.

Solution:

ADJUSTING JOURNAL ENTRIES

December 31, 1929

Notes receivable—members		$26,125	
Entrance fees			$23,750
Taxes on dues and entrance fees			2,375
To record the balance due from members for entrance fees and taxes represented by notes on hand:			
Entrance fees—60 members	$60,000		
Amount collected	36,250		
Balance due on entrance fees	$23,750		
Amount to be collected for taxes—10% of $23,750 or	$ 2,375		

A study of the trial balance will show that the 10% tax on entrance fees and dues was paid the month following the collection as required by the regulations of the treasury department.

The payments of $8,800 in cash and the $2,200 in notes received from the 10 members elected in December, apparently are included in the payments of $36,250 of cash and the notes of the 60 members mentioned in the third paragraph of the problem. An adjustment is necessary to record the sale of the 10 memberships underwritten as follows:

(2)

Entrance fees underwritten	$ 8,000	
Accounts payable—underwritten		$ 8,000
To record payments received on the sale of underwritten memberships (the $800 of taxes are considered as having been paid, and the $2,200 of notes are considered as having been included in the $26,125 of notes recorded in entry #1).		

The fact that these 10 members were elected in December does not necessarily mean that the payments of $8,800 were not made before the election, and that the $800 of tax was not paid before December 31, 1929.

(3)

Due from members—delinquent	$ 1,000	
Taxes on dues and entrance fees	100	
Accounts receivable—members		$ 1,100
To transfer delinquent house accounts and to cancel tax thereon.		

(4)

Caddy and locker house	$10,000	
Buildings		$10,000
To transfer the cost of the caddy and locker house.		

(5)

Golf-course construction	$15,511	
Dues	5,950	
Labor		$10,116
Golf-course supplies and expense		4,539
General expenses		916
Interest paid		2,890
Rent		3,000
To charge golf-course construction with expenses incurred prior to its completion (June 30, 1929), less dues.		

(6)

Depreciation on equipment	$ 850	
Reserve for depreciation—equipment		$ 850
To record depreciation on equipment based upon its life of 5 years from June 30, 1929—10% of $8,500 or $850.		

(7)

Taxes on dues and entrance fees	$ 390	
Taxes payable		390
To record the December, 1929, tax collections.		

(8)

January 1, 1930

Accounts receivable—members	$9,350	
Dues paid in advance		$8,500
Taxes on dues and entrance fees		850
To record the quarterly dues payable January 1, 1930, on 170 memberships at $50 each and taxes of $5 each.		

(9)

Prepaid rent	$6,000	
Rent payable		$6,000
To record the rent for the year 1930, payable January 1, 1930.		

The working trial balance was not required by the examiners. It is given in this solution for explanatory purposes only.

GLENVIEW GOLF CLUB

Statement of assets and liabilities—January 1, 1930

Assets

Current assets:			
Cash in bank		$ 7,225	
Receivables:			
Accounts of members—current	$19,410		
Notes of members—current	26,125	45,535	$52,760

Due from members—delinquent:			
Collectible from proceeds of sales of memberships....			$1,000
Prepaid rent....................................			6,000
Fixed assets:			
Golf-course construction........................		*$145,511	
Club house under construction—			
(guaranteed maximum cost $54,500)		44,500	
Caddy and locker house..........................		**10,000	
Equipment............................	$ 8,500		
Less depreciation reserve.................	850	7,650	207,661
			$267,421

Liabilities and Members Equity

Current liabilities:		
Notes payable—bank...........................	$ 10,000	
Accounts payable.............................	2,341	
Taxes on dues and entrance fees..................	3,225	
Accounts payable—underwriters..................	8,000	
Rent payable.................................	6,000	
Taxes payable................................	390	
		$ 29,956
Entrance fees underwritten—payable from proceeds of membership sales........................		72,000
Dues paid in advance		8,500
Members equity:		
Entrance fees................................	$170,000	
Deficit—six months ended December 31, 1929.......	13,035	156,965
		$267,421

* No depreciation provided for, although built on leased ground.
** No depreciation provided for.

GLENVIEW GOLF CLUB

Working trial balance—January 1, 1930

	Trial balance December 31, 1930 Debit	Trial balance December 31, 1930 Credit	Adjustments Debit	Adjustments Credit	Income and expense Debit	Income and expense Credit	Assets and liabilities Debit	Assets and liabilities Credit
Cash in bank	$ 7,225						$ 7,225	
Accounts receivable—members	11,160		(8) $9,350	(3) $1,100			19,410	
Buildings	54,500			(4) 10,000			44,500	
Equipment	8,500						8,500	
Golf-course construction	130,000		(5) 15,511				145,511	
Labor	26,285			(5) 10,116	$ 16,169			
Golf-course supplies and expense	12,446			(5) 4,539	7,907			
General expense	4,213			(5) 916	3,297			
Interest paid	5,617			(5) 2,890	2,727			
Rent	6,000			(5) 3,000	3,000			
Commissions—soliciting membership	1,100				1,100			
Notes payable—bank		$ 10,000						$ 10,000
Accounts payable		2,341						2,341
Entrance fees		146,250		(1) 23,750				170,000
Dues		22,950	(5) 5,950			$17,000		
"Green" fees		5,015				5,015		
Taxes on dues and entrance fees		490	(3) 100	(1) 2,375				3,225
			(7) 390	(8) 850				
Entrance fees underwritten		80,000	(2) 8,000					72,000
	$267,046	$267,046						
Notes receivable—members			(1) 26,125				26,125	
Accounts payable—underwriters				(2) 8,000				8,000
Dues from members—delinquent			(3) 1,000				1,000	
Caddy and locker house			(4) 10,000				10,000	
Depreciation on equipment			(6) 850		850			
Reserve for depreciation—equipment				(6) 850				850
Taxes payable			(7) 390					390
Prepaid rent			(9) 6,000				6,000	
Rent payable				(9) 6,000				6,000
Dues paid in advance				(8) 8,500				8,500
Excess of expenditure over income						13,035	13,035	
Totals			$83,276	$83,276	$35,050	$35,050	$281,306	$281,306

Correspondence

INVENTORY PRICING

Editor, THE JOURNAL OF ACCOUNTANCY:

SIR: The question as to what should be the proper basis for pricing inventories has arisen quite frequently of late, and as there seems to be some measure of doubt on the subject this letter may help to enliven the discussion and possibly hasten the time when there will be unanimity of opinion.

To begin with, the writer is in accord with the editorial opinion expressed in THE JOURNAL OF ACCOUNTANCY to the effect that the basis of "cost of market" is not perfect but is being advocated and used only in the absence of a more accurate basis. I do not, however, believe that all inventories which are classified as being priced at "cost or market" are actually priced on the proper basis. This, to some accountants, may appear to be a radical utterance, but I have known of such instances, particularly in the cotton-mill industry.

Numerous cotton mills follow the practice of "hedging" in order to avoid losses due to market fluctuations. This is practised in several ways, depending upon local conditions. Some mills contract with a cotton dealer for the purchase of a quantity of cotton for delivery over a period of time, the price of cotton to be a fixed amount over or under the market quotation for a particular month, subject to the buyer's call, such fixed amount being known as "basis." The dealer ships the cotton in accordance with the specifications in the contract and invoices it at the market upon the date shipped plus or minus the "basis," and the buyer remits for the invoiced price.

Officers of the mill having such a contract will sell cloth on the basis of the contract, and as the cloth is sold an equivalent amount of the cotton on contract is "called", which immediately fixes the price of such cotton. When the price of the cotton on a particular invoice has been fixed a settlement is then made by the dealer refunding to the buyer the excess of the invoiced cotton over the "fixed" price, or receiving from the buyer the excess of the fixed price over the invoiced price.

Where loose cotton is available, the mill will buy it and at the same time sell cotton futures of an equivalent amount, closing such futures as cloth sales are made.

Cotton-mill inventories are usually priced at "cost or market," but the cost is usually taken to be the invoiced price, whereas that is not the case. My contention is that the true basis for inventorying call cotton or local cotton purchased with short futures sold against it is invoice price, and that the mill can not properly record any loss on such inventory.

Let us assume a typical case and note the results from using both bases:

Carlton Mills contracts for 2,500 bales of "mobo" type cotton at 250 points on May delivery to be at the rate of 250 bales a week for a period of ten weeks starting November 12, 1929.

At December 31, 1929, there have been eight shipments or a total of 2,000 bales of such shipments, having been billed at the May quotation on the shipping date plus 250 points, giving the following cost for cotton:

Date	Quantity	Market price	Provisional invoice amount
November 12, 1929........	250 bales	16.04	$23,175.00
" 19, 1929........	250 "	16.10	23,250.00
" 26, 1929........	250 "	16.25	23,437.50
December 3, 1929........	250 "	16.40	23,625.00
" 10, 1929........	250 "	16.50	23,750.00
" 17, 1929........	250 "	16.60	23,875.00
" 24, 1929........	250 "	16.90	24,250.00
" 31, 1929........	250 "	16.00	23,125.00
Totals................	2,000 bales		$188,487.50

Sales against the above cotton and the market price on the date on which the prices were fixed were as follows:

Date	Cotton equivalent of cloth sold	Market price at time of fixation	Fixed invoices
November 25, 1929........	600 bales	16.20	$56,100.00
December 12, 1929........	150 "	16.50	14,250.00
" 18, 1929........	300 "	16.65	28,650.00
" 26, 1929........	200 "	16.95	19,450.00
Totals..................	1,250 bales		$118,450.00

Balance of contract is unfixed, 1,250 bales of which 750 have been received and paid for at provisioned prices. The 1,250 bales upon which price had been fixed resulted in paying the dealer additional amounts totaling $1,212.50 which represents the difference between the provisional invoices and the fixed invoices on the first 1,250 bales invoiced.

As at December 31, 1929 the mill had the following inventories:

Raw cotton, 557 bales..................	278,500	pounds
In process..........................	100,000	"
Finished cloth.......................	200,000	"

or the approximate equivalent of 1,250 bales of cotton.

As it is impossible to state which particular bales of cotton were used to produce the cotton in process or the finished cloth, it is customary (where more or less attempt is made to obtain accurate results) to use the reverse chronological order of purchases to arrive at the cost of cotton contained in the two above-mentioned inventories. Where accurate records are not maintained—and even in some cases where there are accurate records—the same procedure is followed in valuing the cotton inventory.

Assuming that the only cotton received during the last eight weeks of the year were the shipments on the 2,500 bale contract, what is the cost price of cotton to be used in determining whether to use cost or market and what price should be used (market at December 31, 1929, May 16.00 spot 15.85, quotations for "mobo" type 200 points on May 2, 180 points on spots)?

Further assume that the 557 bales of raw cotton are identified as being part of the last 1,250 bales received, and ignore the technical points which would only further confuse matters, such as the fact that the average bookkeeper or cost clerk would invariably use the provisional instead of the fixed prices in arriving at average cost, etc. We now find that the cost (per books) of the last 1,250 bales purchased amounted to $119,350.00 or an average cost of 19.10 cents per pound as compared with a May market cost of 16.00 plus 2.00 or 18.00 and a spot market of 15.85 plus 1.80 or 17.65.

Here this customary practice is in error. The average mill would use the market price of spots at 17.65 cents per pound for inventory valuation and believe the inventory correctly valued and therefore correctly stated on the balance-sheet. As a matter of fact, at December 31, 1929, it would be more correct to value 750 bales of the inventory at the provisional cost price, as any market fluctuations are automatically taken care of at the time of fixing the price.

If the price were to be fixed on December 31, 1929, on the 750 bales on hand at provisional prices the mill would receive a refund on the provisional price.

In view of these facts it is my firm opinion that any merchandise purchased on a provisional-price basis, or any merchandise against which futures had been sold, should be inventoried at the provisional price regardless of the market, as a lower market entails a refund to the dealer, and a higher market does not, in my opinion, warrant setting up any additional liability.

Yours truly,

H. J. Beairsto.

New York, N. Y., September, 1930

"THE FUTURE OF THE SMALL ACCOUNTING FIRM"

Editor, The Journal of Accountancy:

Sir: At the recent annual meeting of the American Institute of Accountants, an address was delivered by Mr. Eustace LeMaster on "The Future of the Small Accounting Firm." While the speaker disclaims the purpose, he paints a rather sad picture of the small office, by which term we usually mean one which employs from three to twenty staff accountants and do not include practitioners without a staff of accountants. In hearing his address, or in reading it in The Journal of Accountancy, one is reminded of a reunion of a post of the Grand Army of the Republic in that there are only a few left and they won't last long. Cheer up, old man, the case is not as hopeless as it looks.

The small office has a bright future, but it needs hard and intelligent work to develop it. The public at large does not know what effective service the small accounting office can render and at what insignificant cost when compared with its actual value. Accounting, tax, industrial and management problems can be handled by the principals of the small accounting office, in conjunction with the regular audits, in such a way that the service easily pays for itself. It is true that the major portion of the business public does not know very much of these services and that in the past they have heard of accountants only in relation with catching thieves and getting credit at the bank, but it is also true that the period of enlightenment is at hand. Progressive small firms have, during the past, judiciously and effectively dispelled the belief that accountants are merely thief-catchers or credit-supporters. They have pounded into people the idea that professional accountants are real advisors of business. It is now probable that organized accounting bodies will take up the idea and develop it in a perfectly logical and ethical way. The beginning for this has been made. Notwithstanding the many mergers of recent years, the business of the smaller accounting offices has grown by leaps and bounds, though it now is divided among an ever increasing number of offices.

Contrary to general opinion, the small office has decided advantages over the larger in all work except the audit for clients whose books and accounting records are located over the entire country. Such clients are few in number and form a small part of all the concerns in the United States that do business and have, or ought to have, regular accounting service. These smaller clients doing business locally can be most effectively served by the small office in which the partners can personally supervise the work at close range.

There frequently creeps into professional discussions the thought that the work of the larger is more accurate than that of the smaller offices. Whether this is because the irresponsible free lance who is so often reckless in his work is considered to be among the small office group or whether it is based on an unwarranted assumption is not known; it is certain, however, that reports contested in the courts do not bear out the contention. The best that can be said is that both large and small offices have advantages as well as disadvantages. If the small office is considered as personally conducted, it would seem to have much in its favor in all cases except those where clients' offices are scattered throughout the country.

However, the sales department, call it by any name you will, is the most important part of an accounting office. There is no lack of technical skill in the accounting profession, and if any one can get signed contracts for accounting work at proper compensation, there is little doubt that the work will be done accurately, carefully and efficiently. Ordinarily, the sales department of a large concern is more efficient than that of a small one, and in this respect accounting offices are no exception to the general rule. What accountants in small offices need is not so much more technical skill in handling cases as a better sales plan or sales department. It goes without saying that advertising, as it is generally understood, is ineffective and wasteful in accountancy. Yet the practitioner who specializes in personal service to clients in industrial and management problems, in contradistinction to preparing balance-sheets for credit purposes or catching dishonest cashiers, should let the public know that he is available for such engagements. If a national concern has offices in fifty different cities, it is only natural that it should announce the fact on cards and letterheads. There is nothing wrong in the announcement of the specialist in management nor that of the national concern. No concern that makes contracts for fees should be barred from judicious publicity; contracts and publicity seem to go hand in hand.

The speaker at the annual meeting referred to a Spokane banker who classifies accountants under two headings: those who make statements as the clients want them and those who do not. If the client does not ask the accountant to sacrifice his integrity or to state an untruth, it is not apparent what harm there is for the accountant to try to make statements as the client wants them. The best accountants would not feel flattered to be classed as practitioners who prepare statements in a way that clients do not want them, and, on the other hand, they could not be induced to prepare misstatements. Judging by newspaper reports on a certain contemplated merger, the small offices do not make up the entire first group of accountants mentioned above.

The same speaker mentioned another banker who lost a considerable sum of money through the failure of a large commercial firm and, after reciting the various details of the affair, he wound up with a threat made by the banker, "This is going to hurt all of the local accountants—severely." This threat calls for a challenge. On the facts as related by the speaker, there is nothing to show that the threat was justified because the local accountant had been careful to cover himself by qualifications which apparently had been overlooked by the banker, and had probably secured as large an order as was possible under all the conditions. One can not find him blameworthy, unless he did more than is charged. It might be mentioned that there is nothing new in this condition. In every case of failure, there is a search for the scapegoat and accountants are defenseless until court action is brought and then it costs money to defend lawsuits. It is highly probable that that particular banker got all the information he actually insisted upon, and that he merely discovered that, as usual, hindsight is superior to foresight.

Probably by way of illustrating that the small office may at times not be fully equipped to handle accounting work, the speaker quotes an attorney who recently made an address to a jury in the following language: "All that is required in this state to become a certified public accountant is that you be nineteen years old, of good moral character and pass an easy examination" and adds that the attorney's description is not uncalled for. Perhaps it is not, but I have an idea that in most states the accountant who is certified by the state has a pretty good knowledge of accounting though, as in other professions, he may lack the actual practical experience in handling audits. It is not my intention to maintain that the individual practitioner is fully qualified to handle any audit; what I am referring to principally is the small office employing a staff of accountants. The possession of a C. P. A. certificate is a valuable aid in the building of a substantial practice and unless an accountant has powerful support or connections, he is facing a tremendous task if he attempts it without the certificate from the state. No professional accountant should ever take seriously the disparaging remarks on the value of his C. P. A. certificate.

Credit men have much to atone for. Ever so often they will read into a report something that is not there or something that is plainly stated as not being the case. It is of record that a credit man considered a balance-sheet certified because it was in a cover bearing the printed name of the accountant. This is a particular danger to the small office which specializes in reports for management purposes which are required to be signed and authenticated. We should perhaps have each class of work clearly indicated by a title which can not be misunderstood, but although a good beginning was made in this direction, the work has not progressed much beyond the initial stage. The various accounting organizations would do well to follow this movement and standardize the terms and publish them to credit grantors. This would be of much benefit to the smaller offices and would remove an obstacle to their work that has been created by undue attention to certified balance-sheets.

The successful future of the small professional accounting office is well assured and organized accountancy can do a great deal by developing the activities upon which it thrives, or in any event the law of self-preservation will take care of the problem if the profession as a whole fails to act. The field outside certified balance-sheets is large and fertile for the smaller offices, and, though the work is more arduous than the mere auditing for credit purposes, it is too valuable to be long neglected by the profession as a whole.

It would probably be a good idea for the profession to point out a few improprieties of bankers. At least, in return for the coöperation extended by accountants, they ought to refrain from having audits of their depositors made by their staff, in competition with the professional, usually small, accounting office. When accountancy is as well organized as is, for instance, the legal profession, there will be no need to worry about the small accounting firm.

Yours truly,

MARTIN KORTJOHN

New York, December 4, 1930.

Accounting Questions

[The questions and answers which appear in this section of THE JOURNAL OF ACCOUNTANCY have been received from the bureau of information conducted by the American Institute of Accountants. The questions have been asked and answered by practising accountants and are published here for general information. The executive committee of the American Institute of Accountants, in authorizing the publication of this matter, distinctly disclaims any responsibility for the views expressed. The answers given by those who reply are purely personal opinions. They are not in any sense an expression of the Institute nor of any committee of the Institute, but they are of value because they indicate the opinions held by competent members of the profession. The fact that many differences of opinion are expressed indicates the personal nature of the answers. The questions and answers selected for publication are those believed to be of general interest.—EDITOR.]

FINANCE COMPANIES ACCOUNTING

Question: We are attempting to standardize among our clients methods of ascertaining the amount of deferred income on instalment loans secured by automobiles and other chattels. We present below two methods in use, each having advantages which are outlined. Could you secure for us an opinion from some members experienced in automobile finance accounting regarding these two methods and any others that are considered better? The favor will be much appreciated.

Method 1. All loans are classified according to their terms as 8, 10, 12, 14, 16, or 18 months. For each class, a table is prepared showing the percentage of the total income on a loan which is earned each month of its life, based on the amount of money outstanding during each month of its life.

At the close of the fiscal year a summary is made of outstanding loans showing total fee, total life and balance of time to maturity. By use of this information and the tables above mentioned, the unearned fee on each loan at the end of the fiscal year is computed. Fractions of months are covered by interpolation. A total taken of all itemized unearned fees produces the amount of unearned fees to place on the balance-sheet.

The advantage of this method is a computation of unearned fees as accurate, we believe, as can be had. The disadvantage is the vast amount of time required to make the computations.

Method 2. Some of our clients record at the end of each fiscal year unearned fees amounting to 5% of the outstanding loans at that date. This percentage is arbitrary and, according to the companies using it, is supported by past experience.

Its advantage is that it is easy to compute. The disadvantage is that its accuracy can be proven only by detailed computations covering all or a percentage of open accounts. We are informed that a large percentage of the automobile finance companies use this method.

We have accumulated statistics as to the relation of unearned fees to loans outstanding for several companies using method 1 over the past five years.

The percentages range from 5.36% to 7.43%. The average is 6.59%. This would indicate that the 5% ratio used in method 2 by other companies is too low.

Answer: Your question, of course, has particularly in mind the balance-sheet. However, as a finance company executive, I feel that equal stress should be laid on the profit-and-loss account. In other words, instead of having the problem resolve itself into a question of how much should be deferred on the balance-sheet, I think it should be: How much of the income should be taken into earnings each month or year?

Your letter makes reference to two methods and I would, without hesitation, dismiss method 2 as not only being wrong, but positively dangerous. Method 2 could very easily result in a serious anticipation of income, particularly as there are fairly wide fluctuations in the volume and outstandings of a finance company. Further, a finance company must do a large volume of business on a narrow margin of profit. It can therefore be appreciated how serious would be the effect on the net profit by magnifying the error in the gross profit.

Method 1 indicates that some thought has been given to the subject and perhaps if I should elaborate on it in a paragraph or two, it might be of interest to you.

This method classifies the outstanding accounts according to the terms, or on what we generally speak of in the finance business as a maturity analysis. It is necessary, first of all, to prepare very carefully such a maturity analysis. Then when the total unearned income, as at a definite date, has been accurately computed and set up on the books, the starting point has just been reached.

Your letter intimates that the advantage of this method is a computation of unearned income as accurate as can be had, and adds that the disadvantage is the vast amount of time required to make the computation. I might state that it is a very arduous task to make the initial computation, but it only has to be made once and is well worth the effort and trouble. Having made it, it becomes the starting point and from that time on a record should be kept, which, for the sake of convenience, may be called "amortization record of unearned income." The unearned income thus determined, as at a definite date, should then be spread on this amortization record showing the amounts accruing to earnings each month, until the total is exhausted.

The next step is to determine the method by which the income each succeeding month should be spread to this amortization record, to produce automatically the basis for a monthly journal entry, charging unearned income and crediting earned income. All that is required is to classify the gross finance charges or income, according to the terms of the paper, that is an analysis drawn off showing the total income on eight-months' paper, total income on ten-months' paper, twelve-months', fourteen-months', sixteen-months', eighteen-months', etc. It will be readily seen that this is a simple operation. Even in a large finance company it would only be a matter of an hour or so, particularly if statistical machines are used. It is a by-product of the statistical analysis and involves no appreciable amount of labor. A pre-determined set of ratios must now be established to show what fraction of the gross income is earned the first month, how much the second month, the third month, etc., and a similar set of ratios for paper in the various categories from about six-months' paper up to eighteen-months' paper. It is obvious that it is a simple matter to apply these ratios to the classification of the gross income in order to arrive at the spread of the monthly total to be placed on the amortization record.

I hope it will be quite clear from this that the entire operation is almost startling in its simplicity. I might add that after it has been in operation for a year, it would not be a bad idea to make a test in order to confirm the predetermined set of ratios mentioned, but any further test is really unnecessary.

To sum up, the method might be described in this way: A very careful physical inventory is first made of the unearned income as the basis for a perpetual inventory control of it. This guarantees that not only the amount deferred would be correct, but the amount taken into the earnings each month would always be correct.

Answer: The first method mentioned by your correspondent, in my opinion, is preferable, although I know of several companies that use the second method with satisfactory results. Whether the percentage of deferred income to the loans outstanding is 5% or more will be determined from statistics prepared from the company's own figures. Because of the rise and fall in the volume of business at different times of the year, the percentage, of course, will vary.

The accuracy of the rate used in the second method may be proved by periodically computing an inventory of unearned service charges. If 5% (as is suggested in your correspondent's letter) of the outstanding notes is found to be too low the rate should be adjusted to conform more closely to the company's experience.

Your correspondent's explanation of the first method leads me to believe that his objection to this procedure, namely, that too much time is required, may be largely removed by eliminating some of the detail which apparently is now done, as he states that "the unearned fee on each loan at the end of the fiscal year is computed." To calculate the unearned service charge on each individual loan is not necessary, nor is it necessary to consider fractions of a month further than to regard all business from the first to the fifteenth as purchases to be spread as from the first of the month, and business acquired from the sixteenth to the end of the month to be spread as from the first of the month succeeding the month of purchase. With this division of the month's purchases as a basis the daily business should be spread according to maturity of the notes, consideration being given, for the sake of saving time, to summarizing the daily business into classes, such as eight-months' paper, twelve-months' paper, eighteen-months' paper, etc. From the monthly total of these daily summaries are calculated the percentages of the amount outstanding each month throughout the period, and the service charges (after making some allowance for the cost of acquisition) are prorated over the period on the basis of these percentages. The cost of obtaining and accounting for the business is incurred largely in the month in which the business is procured and for that reason some proportion of the service charge (say 10% or 15% thereof) may be deducted and taken into the current month before prorating the balance.

If the company has been in business long enough to establish accurate statistics I am of the opinion that service charges may be fairly spread on the basis of percentages ascertained to be the average over the preceding two or three years, the accuracy of which may be determined from time to time by an inventory of a fair proportion of outstanding notes.

HOTEL CHAINS ACCOUNTING

Question: It is desired to centralize the accounting for a group of hotels of varying size in one office. The desired objective is efficient and economical handling of the accounts with complete control and audit.

Before making our recommendations we would like to know what methods are used by chain groups of hotels, and what accounting arrangements have been found most satisfactory by other groups of hotels where management and accounting are centralized because of financing.

We are, of course, familiar with the standard works on hotel accounting, uniform systems, etc.—in fact, the present method where the books are kept at each hotel has been very satisfactory. However, our clients feel that expenses may be reduced and better control exercised by handling the accounting through one office, except, of course, guests' accounts, cash and revenue accounts which must be handled at the hotel.

Answer: I have consulted with the chief accountant for one of the large chain hotel organizations, and his experience and my own ideas coincide on this matter. I believe that it is unwise to attempt the complete centralization of accounting at one place for a group of hotels covering a wide territory. It is quite feasible to maintain the corporate accounts, such as capital stock, buildings, depreciation reserve, bonded indebtedness and fixed charges, in one place for all the hotels, but the operating accounts, it seems to me, should always be kept locally.

Centralization of hotels has been considered many times and, specifically, by some of the chains with which I am familiar, but in no case has it seemed advisable to keep the operating accounts at a central point. Your inquirer recognizes the necessity of keeping guests', cash and revenue accounts at each hotel. It seems to me as necessary to keep accounts payable and expense accounts there as well. If this is done all the material is available for the preparation of operating statements. The operating statements should be forwarded to the central office where, if they are on a standard form, they may be consolidated and compared and statistical percentages may be developed from them.

I do not know of any large chain of hotels which operates otherwise and I do know of four important chains whose operating accounts are all kept at the individual hotels.

Current Literature

Compiled in the Library of the American Institute of Accountants

[Photostatic reproductions (white printing on a black background) of most of the articles listed in THE JOURNAL OF ACCOUNTANCY or *Accountants' Index* may be obtained from the library of the American Institute of Accountants, 135 Cedar Street, New York, at a rate of 25 cents a page (8½ in. x 11 in.), at 35 cents a page (11½ in. x 14 in.), plus postage. Members and Associates of the American Institute of Accountants are entitled to a discount of 20 per cent. Identify the article by author, title, name of periodical in which it appeared, date of publication and paging. Payment must accompany all orders.]

ACCOUNTANTS

Duties and Responsibilities

Wildman, John R. *Accountant's Liability for Failure to Discover Fraud; Paper Read before the Eighth Annual Fall Conference of the New York State Society of Certified Public Accountants, New York City, October 20, 1930.* Bulletin of the New York State Society of Certified Public Accountants, October, 1930, p. 36–44.

ACCOUNTANTS' OFFICE

LeMaster, Eustace. *Future of the Small Accounting Firm.* JOURNAL OF ACCOUNTANCY, December, 1930, p. 431–6.

ACCOUNTANTS' SOCIETIES

American Institute of Accountants

American Institute of Accountants. *1930 Year Book of the American Institute of Accountants; Officers, Council, Board of Examiners, Committees, Members and Associates, Proceedings of the Annual Meeting at Colorado Springs, Colorado, September 16 and 17, 1930. Minutes of Council Meetings, September 15 and 18, 1930. Minutes of American Institute of Accountants Foundation Meetings, September 16 and 18, 1930. Reports Presented at Council and Annual Meetings. List of C. P. A. Examiners. By-Laws and Rules of Professional Conduct. Rules of the Board of Examiners.* New York, The Institute, c 1930. 208 p.

National Association of Cost Accountants

National Association of Cost Accountants. *Yearbook, 1930; Proceedings of the Eleventh International Cost Conference . . . Syracuse, New York, June 16, 17, 18, 19, 1930.* New York, The Association, 1930. 278 p.

ACCOUNTING

Prickett, Alva L., and Mikesell, R. Merrill. *Introduction to Accounting.* New York, Macmillan Company, 1930. 374 p.

International

Munro, H. F. *International Balance Sheet.* CANADIAN CHARTERED ACCOUNTANT, November, 1930, p. 146–56.

ARBITRATION AND AWARD

Dodge, Clarence Phelps. *Arbitration of Commercial Disputes.* CERTIFIED PUBLIC ACCOUNTANT, November, 1930, p. 326–32, 333.

BALANCE SHEETS

Hamilton, Mayne D. *Balance Sheets to Bankers.* CANADIAN CHARTERED ACCOUNTANT, November, 1930, p. 157–64.

BANKS AND BANKING

Bank for International Settlements

Makin, Frank B. *Bank for International Settlements.* ACCOUNTANT, November 1, 1930, p. 605–18.

Cost Accounting

Widmayer, William. *Bank Cost Accounting.* New York, National Association of Cost Accountants, November 15, 1930. (N. A. C. A. BULLETIN, vol. 12, no. 6, p. 500–8.)

Costs

Zwingli, C. *Cost Analysis.* NATIONAL AUDITGRAM, October, 1930, p. 7–9.

BOOK STORES

Accounting

Gluick, L. *Simple Accounting and Stock Control Plan for Small Book Shop.* AMERICAN ACCOUNTANT, November, 1930, p. 489–91.

BUDGETS

Municipal

Jamison, J. H. *How Berkeley Controls Its Municipal Expenditures.* COMPTROLLER, November, 1930, p. 6–7.

State

Townsend, Arthur P. *State Governmental Budget System of Pennsylvania.* PENNSYLVANIA PROGRESS, October, 1930, p. 3–8.

BUILDING AND LOAN ASSOCIATIONS

Auditing

Farrar, John. *Audit of Building and Loan Associations.* L. R. B. & M. JOURNAL, November, 1930, p. 9–15, 17.

CALENDAR

Freeman, Herbert C. *Calendar Reform or the Evils of Anticipation.* JOURNAL OF ACCOUNTANCY, December, 1930, p. 437–43.

Guild, Edward M. *Calendar Reform or Not?* L. R. B. & M. JOURNAL, November, 1930, p. 22–4.

CLASSIFICATION

Geier, George J., and Mautner, Oscar. *Account Classification.* CORPORATE PRACTICE REVIEW, September, 1930, p. 21–7.

CORPORATIONS

Law

Great Britain

Parnaby, John F. *English Companies' Act, 1929—Cause and Effect.* JOURNAL OF ACCOUNTANCY, December, 1930, p. 444–58.

COST AND FACTORY ACCOUNTING

Dunkerley, Roland. *Why Cost Accounting Is Vital to Effective Management; with Discussion.* COST ACCOUNTANT, October, 1930, p. 123–35.

Standard Costs

Robinson, Goldsborough. *Administration of Standards and Their Flow Through the Various Accounts.* New York, National Association of Cost Accountants, November 15, 1930. (N. A. C. A. BULLETIN, vol. 12, no. 6, section 1, p. 485–99.)

COSTS

Hargrave, T. H. *Factors in Comparing Costs.* ACCOUNTANTS' MAGAZINE, November, 1930, p. 576–81.

DEFALCATION AND FRAUD

Lenhart, Norman J. *Detection of Frauds and Defalcations; Paper Read Before the Eighth Annual Fall Conference of the New York State Society of Certified Public Accountants, New York City, October 20, 1930.* Bulletin of the New York State Society of Certified Public Accountants, October, 1930, p. 23–35.

Naught, George L. *Frauds and Defalcations; an Address Delivered Before the Eighth Annual Fall Conference of the New York State Society of Certified Public Accountants, New York City, October 20, 1930.* Bulletin of the New York State Society of Certified Public Accountants, October, 1930, p. 10–22.

DEPARTMENT STORES

Finance

Illinois, University of. College of Commerce and Business Administration. Bureau of Business Research. *Financial Plan of Department Stores.* Urbana, Illinois, University of Illinois, Bureau of Business Research, 1930. 37 p.

DEPRECIATION, DEPLETION AND OBSOLESCENCE

Forman, Dudley Perry. *Depreciation and Other Charges.* COST ACCOUNTANT, October, 1930, p. 135–40.

Electric and Street Railroads

Hetzler, Charlton C. *Method of Handling Depreciation by Electric Street Railway Companies.* CERTIFIED PUBLIC ACCOUNTANT, November, 1930, p. 322–5, 342.

Public Utilities

Burke, John W. *Determining Utility Depreciation on a Logical Basis.* ELECTRIC RAILWAY JOURNAL, October, 1930, p. 637–40.

DRUG TRADE

Costs

Ostlund, H. J. *Cost Analysis for Wholesale Operations with Special Reference to Wholesale Druggists.* New York, National Association of Cost Accountants, December 1, 1930. (N. A. C. A. BULLETIN, vol. 12, no. 7, section 1, p. 569–603.)

EXAMINATIONS

American Institute of Accountants

American Institute of Accountants. *Examinations, November, 1930.* JOURNAL OF ACCOUNTANCY, December, 1930, p. 411–30.

FACTORIES

Management

Nelson, Cyril R. *Organization of Modern Industry with Particular Reference to the Accountant and Auditor.* ACCOUNTANT, October 25, 1930, p. 577–82.

FAILURES, BUSINESS

Bush, E. M. *Test Analysis of Unsuccessful Industrial Companies.* L. R. B. & M. JOURNAL, November, 1930, p. 1–8, 24.

Illinois, University of. College of Commerce and Business Administration. Bureau of Business Research. *Test Analysis of Unsuccessful Industrial Companies.* Urbana, Illinois, University of Illinois, Bureau of Business Research, 1930. 59 p.

FURNITURE TRADE

Cordell, Harry W. *Installment Credit in the Furniture Trade.* FURNITURE RECORD, November, 1930, p. 34–7, 62.

Stockkeeping

Berg, Jay. *Unit Stock Control Kills Excessive Markdowns, Haphazard Buying, Slipshod Inventory.* FURNITURE RECORD, December, 1930, p. 54–6.

INDUSTRIAL ENGINEERING

Wilson, H. F. *Industrial Engineer.* COST AND MANAGEMENT, October, 1930, p. 291–5.

INDUSTRY

Great Britain

Walker, Percy H. *Rationalisation of Industry.* INCORPORATED ACCOUNTANTS' JOURNAL, November, 1930, p. 54–8.

INVESTMENTS AND SECURITIES

Withers, Hartley. *Influences Affecting the Value of Securities; with Discussion.* INCORPORATED ACCOUNTANTS' JOURNAL, November, 1930, p. 59–67.

MECHANICAL DEVICES

Hutchinson, P. H. *Mechanical Accounting for Municipal Water Works Departments and Companies; Abstract of Paper Presented at the St. Louis Convention of the American Water Works Association.* WATER WORKS AND SEWERAGE, October, 1930, p. 353–4.

Purdy, Frederick A. *Speedy Visible Accounting Method.* System, December, 1930, p. 477–8.

MOTOR BUSES

Accounting

Davidson, G. M. *Tells More—with Less Work.* BUS TRANSPORTATION, November, 1930, p. 595–8.

MUNICIPAL ACCOUNTING

California. Finance, Department of. Budgets and Accounts, Division of. *Manual of Accounting Procedure for the Port of San Francisco.* Sacramento, California, State Printing Office, 1930. 164 p. (loose leaf form).

MUNICIPAL AUDITING

Butler, A. M. *Some Phases of a Municipal Audit.* CANADIAN CHARTERED ACCOUNTANT, November, 1930, p. 135–45.

PARTNERSHIPS

Welch, Arnon W. *Changing the Cost Basis Through Partnership Reorganization.* TAX MAGAZINE, November, 1930, p. 401–5, 424–5.

PAVEMENTS AND PAVING

Costs

McCormick, J. E. *Resurfacing a Pavement at Low Cost.* ROADS AND STREETS, October, 1930, p. 348–9.

PHOTO-ENGRAVING

Statistics

American Photo-Engravers Association. *Facts and Figures about Photo-Engraving for 1929.* Chicago, Illinois, The Association, c 1930. 72 p.

PRINTING

Costs

Herrick, Anson. *Costs and Standard Rates in the Printing Industry; an Address Before the National Association of Cost Accountants at San Francisco, November 25, 1930.* 19 typewritten pages.

PRODUCTION CONTROL

Lang, B. W., and others. *Inventory Control and Production Scheduling.* COST AND MANAGEMENT, November, 1930, p. 322–9.

PUBLIC UTILITIES

Costs

Gruehn, Herman L. *Significance of Price Economics to the Utility Accountant.* N. E. L. A. BULLETIN, November, 1930, p. 689–92, 731.

RAILROADS

Accounting

Parks, Charles E. *Railway Accounting; Accounting for Freight Revenue, Parts 1, 2, and 3.* Chicago, Illinois, LaSalle Extension University, c 1930. (Railway Accounting Series, nos. 27, 28 and 29.)

Parks, Charles E. *Railway Accounting; Machine Accounting in the Railroad Industry.* Chicago, Illinois, LaSalle Extension University, c 1930. (Railway Accounting Series, no. 26.)

STOCK EXCHANGE

London

Morris, J. W. *Stock Exchange Law and Practice.* ACCOUNTANT, November 15, 1930, p. 677–82.

New York

Meeker, J. Edward. *Work of the Stock Exchange. Revised Edition.* New York, Ronald Press Company, c 1930. 720 p.

STORES SYSTEMS AND STOCK RECORDS

Latter, H. *Inventory Control.* COST AND MANAGEMENT, November, 1930, p. 332–6.

TAXATION

Great Britain

Income and Excess Profits

McBain, A. G. *Complete Practical Income Tax. Edition 5.* London, Gee and Company, Limited. 1930. 272 p. and Supplement 17 p.

United States

Income and Excess Profits

Hartman, Dennis. *Tax Avoidance (supplement).* Washington, D. C., Legal Publishing Society, Incorporated, 1930. 74 p.

THREAD

Cost Accounting

Dickinson, George L. *Cost Control System for a Thread Manufacturing Plant.* New York, National Association of Cost Accountants, December 1, 1930. (N. A. C. A. BULLETIN, vol. 12, no. 7, section 2, p. 606–9.)

TRADE ASSOCIATIONS

Finance

Chamber of Commerce of the United States. *Financing a Trade Association; Survey of Methods Used by Over Three Hundred Trade Associations.* Washington, D. C., Chamber of Commerce of the United States, Trade Association Department, 1930. 63 p.

WAGES, FEES, ETC.

Executives

Poole, F. P. *How Much is an Executive Worth? An Appraisal of Existing Incentives.* FACTORY AND INDUSTRIAL MANAGEMENT, November, 1930, p. 937–9.

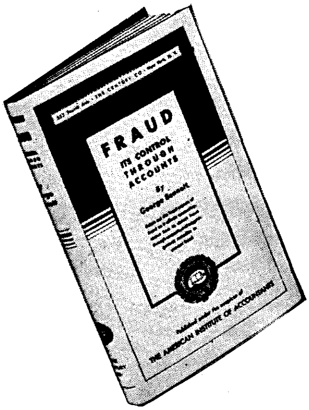
WATERWORKS

Accounting

Galder, H. G. *Water Works Financing and Accounting.* WATER WORKS AND SEWERAGE, October, 1930, p. 345–6.

Addresses of Periodicals

Accountant, 6 Kirby Street, London, E. C. 1, England.
Accountants' Journal, 6 Kirby Street, London, E. C. 1, England.
Accountants' Magazine, Edinburgh, Scotland.
American Accountant, 225 Broadway, New York City.
Bus Transportation, 10th Avenue and 36th Street, New York City.
Canadian Chartered Accountant, Continental Life Building, Toronto, Canada.
Certified Public Accountant, National Press Building, Washington, D. C.
Comptroller, 501 City Hall, Chicago, Illinois.
Corporate Practice Review, 111 West 42nd Street, New York City.
Cost Accountant, 6 Duke Street, London, S. W. 1, England.
Cost and Management, 81 Victoria Street, Toronto, Canada.
Electric Railway Journal, 10th Avenue and 36th Street, New York City.
Factory and Industrial Management, 285 Madison Avenue, New York City.
Furniture Record, Division Avenue North, Grand Rapids, Michigan.
Incorporated Accountants' Journal, 50 Gresham Street Bank, London, E. C. 2, England.
Industrial Engineer, 7 S. Dearborn Street, Chicago, Illinois.
Journal of Accountancy, 135 Cedar Street, New York City.
L. R. B. & M. Journal, 110 William Street, New York City.
National Auditgram, Federal Reserve Bank of Cleveland, Cleveland, Ohio.
Pennsylvania Progress, Harrisburgh, Pennsylvania.
Roads and Streets, 221 East 20th Street, Chicago, Illinois.
Tax Magazine, 250 West Monroe Street, Chicago, Illinois.
Water Works and Sewerage, 221 East 20th Street, Chicago, Illinois.



FRAUD

Its Control Through Accounts

By GEORGE E. BENNETT, Ph.D., C.P.A.

Professor of Accounting and Head of the Accounting Department of the College of Business Administration at Syracuse University; Author of "Accounting Principles and Practice," "Basic Accounting," "Auditing," etc.

This book explains the legal aspects of fraud as it affects accounting; shows how to detect fraud through accounts; and suggests general remedies to prevent fraud through the utilization of the principles of "internal check." It tells what methods should be used in an audit, what details are important when an accounting system is installed, and what apparently is the quickest way to uncover a suspected fraud. FRAUD: ITS CONTROL THROUGH ACCOUNTS is a working guide designed to give the reader useful information briefly and clearly. *Royal octavo, 132 pages. Price, $1.50.*

C. P. A. LAWS OF THE UNITED STATES

COMPILED AND EDITED BY

THE AMERICAN INSTITUTE OF ACCOUNTANTS

This is the only available collection of the full text of all of the laws governing the certification of public accountants in all of the states and territories of the United States. The text of each law included in the volume has been verified by competent authority in the state of origin, and amendments to the laws up to October, 1930, are included. This book should prove of great value to all students of accounting who intend to apply for C.P.A. certificates, and to accounting firms which have offices, or intend to open offices, in more than one state. *Limited edition. Royal octavo, 250 pages. Price, $3.00.*

Published under the auspices of The American Institute of Accountants

THE CENTURY CO.

Publishers of THE NEW CENTURY DICTIONARY

353 Fourth Avenue
NEW YORK

2126 Prairie Avenue
CHICAGO

Classified Advertisements

Copy for classified advertising must be in hand at the office of The Journal of Accountancy previous to the twentieth day of the month preceding month of publication. Rates for "Help Wanted" and "Miscellaneous" are $9 per inch or fraction for one insertion; $7 per inch or fraction each additional insertion. "Situation Wanted," $5 up to 65 words each insertion.

HELP WANTED

Help Wanted

If you are open to overtures for new connection and qualified for a salary between $2500 and $25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service of recognized standing and reputation, through which preliminaries are negotiated confidentially for positions of the calibre indicated. The procedure is individualized to each client's personal requirements, your identity covered and present position protected. Established twenty-one years. Send only name and address for details. R. W. Bixby, Inc., 125 Downtown Building, Buffalo, N. Y.

MISCELLANEOUS

Accounting Practice Wanted

A well known and reliable firm of Certified Public Accountants will purchase public accounting practice in Chicago and adjacent territory. Box No. 103, care of The Journal of Accountancy.

SITUATION WANTED

Englishman, 28 years of age, who was awarded the silver medal May, 1928, and is a member of The Society of Incorporated Accountants and Auditors, desires JUNIOR EXECUTIVE position anywhere in United States. Has had two years' public accounting experience with big New York firm in addition to 9 years with a London firm of Chartered Accountants. Will commence at a salary of around $2000. Box No. 104, care of The Journal of Accountancy.

Staff Auditor—Controller

Services of a constructive accountant available on reasonable notice. Qualified to supervise a large staff, or the accounts of a large organization. Age 42, self educated, well balanced experience. Familiarity with accounting technic evidenced by California C.P.A. certificate. Minimum salary $7200.00. Box No. 102, care of The Journal of Accountancy.

RUMFORD PRESS
CONCORD, N.H.