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Deflation in Relation to Cost Accounting*

By STANLEY G. H. FITCH

For more than two years the business concerns of this country have been passing through a period of deflation—deflation in commodity prices, in salaries and wages, in views of men as to what constitute necessities as contrasted with luxuries. The process of deflation has not yet been completed, although substantial progress has been made in many lines. Representative bankers and business men have expressed the opinion that optimism has now to a large extent replaced the pessimism as to the recovery of business which for a time was perhaps too generally in evidence. There are indications that fundamentally business conditions are improving, although slowly and irregularly. A sudden recovery after the sharp liquidation through which we have passed should not be expected nor desired if business is to be firmly reëstablished upon sound foundations.

It, therefore, seems to be apparent that for some time to come we shall be faced with subnormal business conditions reflected by curtailed production on the part of manufacturers, involving part-time operation of plants or periodical shut-downs. In order to meet this situation, drastic cuts in expenses have been made by business executives. Operating organizations have been reduced to mere skeletons and clerical forces have been well-nigh wiped out. Under such conditions it is perhaps not strange that the continuance of a cost department should be regarded as not justifiable, and this thought brings me directly to the development of the subject of this paper.

The question may well be asked: Should a cost department be retained under present business conditions? This can be answered in the affirmative, and it will be indicated later how, in

* An address delivered at the sixth annual meeting of the Associated Industries of Massachusetts, at Boston, October, 1921.

a majority of cases, it is feasible to accomplish this while making some concessions to the necessity for economies in clerical payroll.

Scope of Cost Accounting

A broad conception of the term "cost accounting" includes not merely the bookkeeping work incidental to tabulating figures relating to costs of job orders, processes, etc.—it embraces complete general accounts, usually in condensed form, including appropriate controlling accounts for raw materials, work in process, finished product, overhead expenses, etc., from which periodical statements of operations and financial condition can be prepared; it embraces subsidiary records, in support of the major controlling accounts, kept in such detail as may be required to disclose necessary analytical information relating to costs, raw and finished stocks on hand, etc.; it embraces the interpretation, in the light of comparative standards, of the figures disclosed by the accounts; it embraces the whole field of materials control, the efficiency of labor, labor turnover, routing and planning of work, and the determination, apportionment and application of the elusive element of overhead expense or burden. In short, the present-day conception of cost accounting covers the entire range of industrial accounting.

It is safe to say that in normal times no sane man would venture the assertion that any business can be successfully conducted without a knowledge of the cost of operations. Competition founded on an intelligent use of production costs can be met on its own ground, but a competitor who does not know his costs and fixes prices in ignorance of proper cost information will not only ultimately come to grief himself, but will adversely affect the operations of others who are striving to obtain a fair return on their investment.

It is true, however, that the use of costs as a basis for fixing selling prices, except in non-competitive lines, is of secondary importance. Goods have to be sold for what they will bring in the open market but the management should know what margin exists between cost and selling price so that the least profitable lines can be withheld and the sale of the more profitable pushed.

It is as a means of controlling operations that costs are an indispensable aid to management. Comparative departmental costs over an extended period afford a basis for determining relative efficiencies of department heads and the establishment of interdepartmental competition, encouraged by suitable bonus rewards for best performances.

The development of cost accounts, to be of the greatest value, should be under the direction of a trained cost executive or cost engineer. Costs accurately compiled under such direction then form a basis for consultation between the factory head and the management, in which the cost engineer frequently acts as interpreter of the cold figures. Sympathetic understanding by the cost executive of the problems of the shop and a full realization by the factory head of the need for full information, which only the shop can give, and the importance of the work of the cost department are prerequisite to the coöperation between them, without which the full benefit of the cost accounting cannot be achieved.

An adequate cost system includes, as one of its integral parts, a perpetual inventory or stock record, from which can be shown quantities and values, appropriately classified, on hand at all times. Many executives fail to realize that materials represent money and that they should be safeguarded and accounted for not less diligently than the petty cash fund, which is generally subject to close scrutiny. Moreover the value of materials carried on hand by the average manufacturer is ordinarily many times that of cash in bank; but it is frequently subject to verification only at the time of annual or semi-annual stock-taking.

An essential accompaniment of a perpetual inventory is thorough physical control of all materials and the fixing of responsibility for their care and issue only on duly authorized requisitions. Periodical comparisons between the stock records and actual stocks on hand insure the accuracy of the records, indicate possible loss or pilfering of stock and obviate the necessity for a complete physical inventory at any set date, involving, as is frequently the case, a shutdown of the plant and subsequent forced and overtime work of the clerical staff with attendant interruption of regular work.

Close coöperation between the stock department and the purchasing department is of prime importance. A supervisor of stock (in contrast to a stock clerk) can render valuable service in maintaining well-balanced stocks, of sufficient size to prevent delays in production, while holding the quantities down to a reasonable minimum, and a purchasing agent (in contrast to an order clerk) will exercise discretion in buying, follow closely the markets for materials and see that materials are shipped when promised.

Expediency of Retaining Cost Department Organizations During Periods of Business Depression

Granted that cost accounting is essential to the successful conduct of modern business, and assuming that an efficient cost department has been organized and developed to a high state of efficiency, affording to the management the means of effective and necessary control, it would appear to be little short of a calamity to consider the abandonment of such a department at a time of business depression and keen competition when the need for such an aid to management is greatest. If expenses must be cut, if retrenchment is the order of the day, why destroy the beacon which can show the way to effective economies through elimination of the least efficient departments or by discontinuance of unprofitable lines of product?

It should not be understood that the retention of a cost department in its entirety is advocated in the face of wholesale reductions throughout other departments of an industrial organization, but it should be feasible to retain the nucleus of the cost department's organization and to continue the most essential part of the cost accounting work. The management can then have the benefit of information needed to guide its decisions in a critical time; the hardship on individuals will be minimized; and the time, energy, thought and money expended in organizing and developing the cost department will not be entirely lost. When business revives, the management can readily expand the cost department's personnel to meet improved conditions without rebuilding the entire fabric of cost system and cost accounting organization.

This principle of holding together an industrial organization in times of depression has been extensively applied in numerous large plants during the past two years or more. Not only have the departmental organizations been retained in skeleton form, but by reducing hours, i.e., by working a reduced force and alternating the employees every two or three days, substantially the entire force is kept on the payroll, the burden of unemployment is shared by all instead of any part only, and the personnel suffers little change when business improves and full time is resumed, the company thereby escaping the loss, delay and inconvenience attendant upon breaking in new employees.

It is possible that many executives, while recognizing the importance of retaining, as far as practicable, a skeleton organization in productive departments during times of depression, owing to the difficulty of replacing the personnel when business improves, fail to realize that it is equally difficult to rebuild the organization of trained employees in a so-called non-productive department whose function may be fairly classed as an essential one in the intelligent management of the business.

By way of illustration the following specific case is cited. A machine shop had developed its cost department to a highly satisfactory degree. Materials, labor and overhead expense were under proper accounting control and, by means of job orders, detailed costs were obtained on individual parts as well as on complete machines. When the bottom fell out of the machine-tool business, strong pressure was exerted on the manager to abolish the cost department. After due deliberation, however, it was decided to eliminate all detail work of posting to job orders and to subsidiary material stock accounts with a consequent reduction in the clerical force.

Summaries of material requisitions, however, were continued as a basis for the usual controlling account entries, crediting raw materials account and debiting work-in-process account. Payroll summaries, showing totals of direct and indirect labor, were likewise continued, and the usual controlling charges were made to work-in-process and overhead expense accounts. The overhead expense chargeable to the cost of the product was ascertained on a predetermined standard and the controlling accounts for work-in-process and overhead expense were debited and credited, respectively. The value of the finished product was computed on the basis of standard costs; and work-in-progress and finished-product controlling accounts were credited and debited, respectively. Finally finished-product controlling account and cost-of-sales account were credited and debited respectively with the standard cost of goods sold. In other words, the skeleton of the organization was retained, and the essential controlling accounts were built up as usual, so that with the recovery of business, the cost department will be in position to function, by a simple expansion of personnel, as heretofore, while in the meantime the reduced force can readily furnish necessary information required by the management.

Determination and Use of Standard Costs

Another phase of cost accounting which of late years has deservedly received increasing attention is the development of standard costs as a measure of actual production efficiency. Under ordinary conditions standard costs have been introduced with decided success. Under present conditions it seems to me that they provide the basis for the solution of many of the cost problems with which the industrial community is now faced.

Standard costs may be regarded as predetermined costs based upon a normal production for a given plant. By normal production is not meant maximum capacity production which might only be attained under boom conditions, but a reasonable production under ordinary business conditions. It is of course necessary to determine separately the standards for the three elements of cost: viz., direct material, direct labor and overhead expense.

Little difficulty will be met in determining standard material costs. Stores records and purchase records will show costs of materials on hand or to be bought, and past production records should show what allowance to make for additional costs due to shrinkage or loss in manufacture. Specifications should provide the necessary information as to quantities.

Standards of production must be carefully determined and are essential in fixing standard labor costs. Current wage rates, in conjunction with production standards, supply the basis of standard labor costs. Inasmuch as direct material and direct labor vary with production, all such material and labor charges (theoretically at least) are absorbed in the cost of the product, even though production falls short of normal.

When we come to consider the element of overhead in standard cost, however, we are confronted with a different problem. Overhead expense does not vary with changes in the volume of production as is the case with direct material and direct labor, but to a great extent it remains fixed, regardless of fluctuations in volume of product. Taxes, insurance, depreciation and salaries of superintendents are examples of charges which persist on a substantially constant basis. Indirect labor, expense supplies, heat and light and repairs may vary to some extent with production, but in any event there are minimum charges for such items which must be absorbed. Having regard to the above conditions, the first step in determining a proper overhead charge for inclusion in a standard cost is to ascertain the total overhead for the plant under normal operating conditions. Next we have to determine what constitutes normal production in terms of production units or in productive labor hours. The normal overhead cost can then be fixed for inclusion in a schedule of total standard cost.

The discussion of the allocation of overhead to cost of product might be extended to cover the respective merits of the several methods in common use, which, to cite some of those most familiar, include the percentage of direct labor, the productive man-hour rate and the machine-hour rate; but it is perhaps sufficient to say here that the conditions prevailing in any given case should be carefully studied and that method selected which will give the best practical results, having regard to refinement of costs desired, clerical work involved, etc. Furthermore, it will be found that under some conditions the distinction between direct labor and overhead expense loses much of its force, as when one operator attends several automatic machines, so that both charges can be combined and carried into the standard cost computations as a single item.

It is obvious that, if a plant runs on less than normal production, there will necessarily result a certain charge for overhead not absorbed in costs, frequently termed "unabsorbed overhead" or "unapplied burden," which may properly be regarded as the cost of idle capacity. In slack times the use of a normal charge for overhead will result in a balance of unabsorbed overhead which must ultimately find its way to profit and loss account. In times of business activity the production may at times exceed the normal, and in such case there will be a balance of overabsorbed overhead. In actual practice the balance of overhead account will be closed out only at the end of a fiscal period, but in presenting monthly statement of profit and loss the balance should be shown as a supplementary charge or credit to profit and loss, so that there may be no misapprehension of what the *actual* profits are, even though costs have been computed on a normal overhead basis. The cost of idle capacity, as disclosed by the amount of unabsorbed burden, should ever be kept in the limelight, especially in times like the present, so that a full knowledge of the additional production required to absorb the overhead and thus place the plant on a paying basis may be readily available.

Having established a basis of standard costs, actual costs should be currently compiled in comparison with the predetermined standards and all variations from standards should be carefully investigated. It is at this point that the cost engineer can be of highest value to the management in interpreting the results of the cost comparison and in suggesting lines of action leading to the elimination of waste and to more efficient operation, to changes in methods of handling product or to the elimination of unprofitable articles hitherto made and to the standardization of the product, for volume output, in contrast to the continuance of specialties hitherto deemed essential to hold certain trade.

Operating results expressed only in dollars have an undoubted value for the purpose of exhibiting gross and net profits for successive periods, as set forth in operating and profit-and-loss statements. If we go a step farther and show the results in dollars per unit of production and in analytical form, we shall have made a distinct advance toward disclosing essential information. Such comparisons, however, drawn from actual operating results, are likely to reflect a period of extraordinarily good business followed by a period of business depression, neither of which represents normal production or normal costs. Therefore, without standard costs as a basis, comparisons of operating costs may lead to erroneous conclusions and may seriously affect the future of the business. If an overhead charge is adopted, which has been based on boom operations and included in cost estimates for new business, it is clear that such a cost, being lower than normal, could not be realized under normal conditions and the new business if obtained would not show the expected margin of profit. If, on the other hand, cost estimates are based on overhead charges prevailing in periods of depression (i.e., charges in excess of normal), the cost in a majority of cases will be too high to enable the plant to obtain business in competition with prices calculated on a normal overhead basis. The foregoing illustrations show the importance of standard costs as a guide in planning a business campaign..

Balance-sheets of borrowers are now, perhaps more than ever before, subject to searching scrutiny by bankers and credit-men, whose attention in a great number of cases is focused upon the inventory as the key to the borrowers' financial condition. The familiar phrase describing the valuation of the inventory as "cost or market, whichever is lower," may conceal a large-sized joker. What does "cost" mean, especially with reference to finished product manufactured when production is far below normal? Does "cost" mean that actual overhead charges have been loaded upon the merchandise, thereby inflating the book value by inclusion of unearned overhead which should have been charged to profit and loss? Obviously the fair cost to use in the valuation of an inventory is a standard or normal cost. If the latter basis has been used, supported by details drawn from the cost records, then the borrower will be in a strong position to maintain his credit with his banker, while if the former basis has been used, the credit-man's mind is at once charged with doubt as to the soundness of the borrower's balance-sheet.

Special Problems in Standard Costs

The determination of standard costs and standard production for many plants as they exist to-day presents problems quite different from those encountered in ordinary times. Owing to the extraordinary demands of the war, plants were increased several times their pre-war size. Some of those plants were utilized to their maximum capacity, while others were not completed until about the time when war orders ceased. In either case the extent to which it may be possible to utilize the increased facilities after the return to normal conditions cannot now be ascertained. In the case first mentioned, data should be presumably available regarding production and costs, but the emergency conditions under which the plants were operated render the information unsuitable for use in determining normal standards, so that the problem in both cases is essentially the same, i.e., the standards must be set with little or no reference to past performances.

A typical instance will perhaps illustrate how the solution may be worked out. A plant operating five distinct departments was, under pressure of war conditions, expanded to three times its former capacity, but the construction was not completed until the emergency had passed; and the plant has lain idle for more than two years. A revival of its business is now in sight and plans are being made to reopen the plant. The management was faced with the problem of taking orders without any relative information as to production costs in the enlarged plant. Under these conditions a careful survey of the plant and equipment was made; a normal production schedule was formulated; the overhead expense was estimated, and standard costs were computed. The possible business in sight was of course taken into consideration, but it was recognized that in reopening the plant it would have to operate for some time on less than the normal production and that there would be a loss measured by the unabsorbed overhead until normal production was attained. While the standards established were necessarily regarded as tentative, and subject to revision after operations had proceeded for a representative period, the management was satisfied that the basis presented for feeling out the market and for considering orders on competitive prices was feasible and immeasurably better than the alternative of guesswork.

A further instance may help to illustrate the thorny path which the cost accountant must tread when he encounters an unsympathetic board of directors. Some years ago a cost system, involving the determination of standard overhead rates, was installed for a corporation during a time of business depression for its particular industry. Needless to state, the standard overhead rates were substantially less than the actual rates based on restricted output. The manager was convinced that new business could only be obtained by basing selling prices on standard (normal) costs, enabling the company to meet competition, with the possibility of increasing output, thereby absorbing a greater proportion of overhead. The schedule of standard overhead rates proposed was finally presented to the directors for approval. The basis upon which the standards had been worked out was carefully explained and it was shown that the volume of production used as normal was far from maximum capacity and was fixed following joint investigation by the accountant, the manager and the superintendent. The chairman, however, promptly rejected the whole plan on the ground that in his opinion the company could not hope to reach the stated normal output except in a boom year, and he insisted that costs be computed on the basis of present actual overheads and that selling prices be determined thereby. Arguments that by so doing the company could not hope to obtain new business were futile. Subsequent events showed a further falling off in production, with the result that costs were further inflated by the increase in the rate of overhead expense. Consequently, the increased loss from idle capacity was concealed.

Growing Recognition of the Value of Cost Accounting

It was pointed out in the early part of this paper that while deflation in business has not yet wholly run its course, there are present indications of a hopeful outlook for the not far-distant future. The trying times through which the business of the country has passed have served to emphasize the great importance of precise methods of accounting and of accurate information relating to the cost of producing and distributing the enormous variety of commodities required to feed, clothe, house and transport our ever-increasing population.

Increased interest in industrial accounting problems on the part of business executives, as well as by cost accountants in both public practice and private employ, is evidenced by the formation of various associations of cost accountants, by the frequent discussion of cost accounting problems at meetings of trade associations and by the increased enrolment in schools and colleges which offer educational courses in cost accounting and allied subjects. A further indication of the recognition of the value of cost accounting is found in the fact that upwards of sixty trade and industrial associations have adopted uniform accounting systems developed especially for their particular lines of business. Here is evidence that many business executives not only recognize the value of correct accounting for themselves, but that they want their competitors to keep their accounts on a uniform plan, so that when costs are computed, they will conform to one, and only one, conception of what constitutes cost and thereby make for stability in the industry. While much has been accomplished in spreading the gospel of correct cost accounting, there yet remains a great deal to be done in this direction, and it is through the activities of such organizations as the Associated Industries of Massachusetts that the real value of cost accounting will be understood and applied in industrial enterprises.

Should Obsolescence Be Capitalized?*

By EARL A. SALIERS

Income-tax legislation has necessitated the more careful formulation of those accounting principles which should govern records which are concerned with the acquisition, use, abandonment or replacement of wasting assets. This subject is still in its developmental stage; nevertheless, more has been done to establish a theoretically sound procedure in case of loss or expense resulting from wear and tear and depletion than in case of obsolescence. Moreover, obsolescence is usually regarded merely as one type of depreciation and as being governed by quite the same principles as apply to depreciation arising from ordinary physical wear and tear.

Admitting that for purposes of classification it may be admissible or even desirable to regard obsolescence as one kind of depreciation when the word "depreciation" is employed in a comprehensive sense, it is nevertheless necessary, in treating obsolescence in detail, to begin by recognizing the fact that it differs in some very important ways from physical depreciation.

The writer thinks it advisable to classify "depreciation" as thus comprehensively employed into three classes, as follows:

1. Wear and tear.
2. Obsolescence.
3. Inadequacy.

With wear and tear we are sufficiently familiar to make it unnecessary to consider it here. We are also familiar in a general way with obsolescence and inadequacy, but usually these have not been carefully distinguished, and accountants have not gone far enough in the study of their financial significance. Sometimes inadequacy and obsolescence are regarded as synonymous. One authority says that "obsolescence is the loss due to the necessity of discarding property because it has become *inadequate* or incapable of being used in competition with more modern and effective things, or because the market for the article it produces will disappear before the producing property is exhausted."[1] The revenue law of 1918 provided

* A paper read at the New England regional meeting of the American Institute of Accountants, at Hartford, Connecticut, December 10, 1921.

[1] Holmes, G. E. *Columbia Income-tax Lecture*, p. 151.

for a "reasonable allowance for obsolescence," but made no mention of inadequacy; and, so far as the writer knows, inadequacy has not been comprehensively considered by the treasury department in the interpretation of the various income-tax laws.

In reality, however, inadequacy and obsolescence are distinctly different concepts. A plant or a unit of plant may be inadequate but not obsolescent. On the contrary, an asset which is obsolete may be wholly adequate to perform its allotted work. Adequacy has reference to the capacity of a machine or plant to meet the demand made upon it for a given volume of output and therefore is not primarily concerned with the question of the machine's up-to-dateness; for the reason that a strictly up-to-date machine of a capacity of, say, four units per hour may be entirely inadequate to meet the demand made upon it, whereas an entirely obsolete machine of, say, eight units per hour capacity may be entirely adequate to meet such a demand. Inadequacy arises from physical incapacity; obsolescence is purely a question of cost of production and is related in no way to the capability of a given plant or unit of plant to meet the demand made upon it for a given output. It follows that the factors which give rise to inadequacy and obsolescence are not related and that these two forms of depreciation should receive individual consideration.

Let us assume the case of a machine which costs $10,000, has an estimated natural physical life of ten years and an estimated scrap value of $1,000. If the machine lives out its natural physical life, i. e., if neither obsolescence nor inadequacy causes it to be abandoned before it is worn out, it will be cared for by the usual method of setting up a depreciation reserve against which its cost less salvage is charged when abandoned. But there are two possible alternatives. First, the machine may, before the expiration of the tenth year, become incapable of performing the amount of work demanded of it because of an increase in that amount. Secondly, it may become unprofitable to continue using the machine because another could be purchased which would do the work equally well at a smaller cost per unit of output. Under the first assumption the machine is inadequate; under the second assumption it is obsolete. It is easy to see that the factors or influences which give rise to the one are not the ones that give rise to the other.

It is the writer's belief that the failure to do more than merely generalize on this subject has led to the scrapping of a great amount of equipment which was neither inadequate nor obsolete when scrapped. This has happened because accountants and managers fail to realize that in a going concern there can be no such thing as a capital loss, that every expense of production must be charged to cost of production and that therefore the entire cost of wasting assets must be included in the *cost* of production, whether or not all plant units live out their natural physical life. This truth is given effect by establishing depreciation reserves which are intended to return the cost of wasting assets out of revenue during their natural physical lives. Sometimes an attempt is also made to forestall obsolescence and inadequacy, either by setting up excessive depreciation reserves or by setting up special reserves which are of the nature of reserves for contingencies. No fault can be found with reserves for contingencies if they are thoroughly understood and if they are regarded as true surplus and not as valuation reserves. But the writer believes that no reserves of any kind are necessary or desirable for the proper handling of obsolescence and inadequacy, because the cost of a unit of plant should be written off by means of a charge to depreciation based on the natural physical life of such unit, and where such rate does not cover cost due to the shortening of useful life from obsolescence or inadequacy the uncovered cost or cost not returned through such normal depreciation rate should be added to the cost of replacement and written off over the natural physical life of the new unit.

There are several reasons why this ought to be the procedure. In the first place it is impossible to make adequate provision in advance for either inadequacy or obsolescence because the time of occurrence of either cannot be forecast. This is true in particular of obsolescence, and it is true in only a less degree of inadequacy. We rightly regard wear and tear as an accruing expense in which the element of time is a determining factor; but we wrongfully assume that time has any relation to obsolescence and inadequacy. Obsolescence and inadequacy do not accrue in the sense that interest and wages and depreciation from wear and tear do. On the other hand they are similar to losses from fire or storm or to the cost of tearing down a structure, which is added to the cost of the structure which replaces it. Obsolescence should not result in the partial writing down of the unit under consideration; on the contrary it either causes the given unit to become immediately or entirely worthless or it has no financial effect whatever. It is illogical to speak of a unit of plant as being partly obsolete. As long as it is profitable to continue an existing unit in operation it is not obsolescent in any effective sense because obsolescence is purely a matter of relative costs of production, not of physical condition. Obsolescence becomes effective only when production can be carried on more cheaply by replacing a given unit, *the undepreciated or unrecovered cost of which was considered as a part of the cost of replacement.* Obsolescence, therefore, when effective, is measured by the amount by which cost less salvage exceeds the amount of the depreciation already written off at any given time.

Returning to our assumed illustration of the machine which cost \$10,000 and possesses an estimated life of ten years and a residual or scrap value of \$1,000, let us further assume that five years of useful life have expired and that at the close of each year a depreciation reserve has been credited with one-tenth of (\$10,000—\$1,000) or \$900, so that now there exists a reserve of \$4,500. There is, of course, an additional \$4,500 to be accounted for, either in the form of future charges to depreciation or as obsolescence or inadequacy. Now suppose that at the end of the fifth year a new machine which costs \$9,000 comes on the market and will perform equivalent service at a smaller total cost per unit of output. The problem is to determine whether or not the old machine is obsolete. The two elements which enter into cost of production are (a) the unrecovered investment in the machine and (b) necessary current expenses such as labor and power. We may assume that an investigation shows that these items are for the old and new machines, respectively:

Old machine		*New machine*	
Unrecovered cost, i. e., cost less depreciation earned	Current operating expense	Unrecovered cost, i. e., cost less depreciation earned	Current operating expense
\$5,500	\$600	\$8,000	\$400

If money is worth 6 per cent., the capitalized cost of operating the old machine is $600 ÷ .06 or $10,000; that is, it is equivalent to a capital investment of $10,000, whereas the capitalized cost of operating the new machine is $400 ÷ .06 or $6,666.67. Adding these to the original costs of the respective machines we have for the old machine:

Original cost less earned depreciation	$ 5,500.00
Capitalized operating cost	10,000.00
Total capitalized cost	$15,500.00

and for the new machine:

Original cost	$ 8,000.00
Capitalized operating cost	6,666.67
Total capitalized cost	$14,666.67

Therefore, as compared with a new machine of equal capacity the old machine is worth $4,666.67, which is obtained by deducting the excess in total capitalized cost of the old machine over that of the new machine ($833.33) from the unrecovered investment in the old machine ($5,500.00). But since its salvage value is only $1,000, to scrap it would mean a loss of $4,666.67—$1,000 or $3,666.67 and no saving in total capitalized cost of production, because when the old machine is valued at $4,666.67 it produces as cheaply as does the new machine. The true total capitalized cost of production if the old machine were scrapped would be:

Original cost of new machine	$ 8,000.00
Unrecovered cost of old machine (less salvage) ..	4,500.00
Capitalized operating cost	6,666.67
	$19,166.67

whereas the capitalized cost of operating the old machine is only $15,500. If, however, the new machine could be bought for $8,000 — $3,666.67, or $4,333.33, then the new and old machines would be on a par and it would be immaterial whether the replacement were made or not. The same would be true if the capitalized operating cost of operating the new machine could be reduced to ($6,666.67—$3,666.67) or $3,000 (which is an operating expense of $180 capitalized at 6%), for then we should have:

Original cost of new machine	$ 8,000.00
Unrecovered cost of old machine (less salvage) ..	4,500.00
Capitalized operating cost	3,000.00
	$15,500.00

These calculations show that before a machine can be said to be obsolete it must be shown that production can be carried on more cheaply with a new machine to whose cost has been added the unrecovered cost (less salvage) of the old one. They also show that unless a machine is made entirely obsolete by a new invention it is not affected in any way whatever because it continues to be cheaper to operate the old machine than to scrap it and buy the new one.

The fact that the unrecovered cost (less salvage) of the old machine must be added to the cost of a new machine in order to determine whether or not the old machine is obsolete does not of itself make it compulsory that the unrecovered cost (less salvage), which is the measure of effective obsolescence, be capitalized in determining cost of replacement. We must therefore inquire further into what disposition ought to be made of this cost of obsolescence. The following methods of procedure are open to consideration:

(a) Charge it to current operations.
(b) Charge it to surplus.
(c) Capitalize it and then recover it through depreciation charges based upon the expected natural physical life of the unit which replaces the one which has become obsolete.

There is good reason why obsolescence ought not to be charged to current operations except in unusual circumstances, although it is, perhaps, the plan now most frequently pursued. Until the passage of the revenue law of 1918 no deduction was allowable for obsolescence until the obsolete property was sold or otherwise actually disposed of. Section 214 (a) (8) of the 1918 law provided that in computing net income there should be permitted as a deduction:

A reasonable allowance for exhaustion, wear and tear of property used in the trade or business, including a reasonable allowance for obsolescence.

Article 161 of regulations 45 provides, furthermore, that

* * * For convenience such an allowance will usually be referred to as depreciation, excluding from the term any idea of a mere reduction in market value not resulting from exhaustion, wear and tear or obsolescence. The proper allowance for such depreciation of any property used in the trade or business is that amount which should be set aside for the taxable year in accordance with a consistent plan by which the aggregate of such amounts for the useful life of the property in the business will suffice, with the salvage value, at the end of such useful life to provide in place of the property its cost, or its value as of March 1, 1913, if acquired by the taxpayer before that date.

Article 166 furthermore provides that

> Inasmuch as under the provisions of the income-tax acts in effect prior to revenue act of 1918 deductions for obsolescence of property were not allowed except as a loss for the year in which the property was sold or permanently abandoned, a taxpayer may for 1918 and subsequent years revise the estimate of the useful life of any property so as to allow for such future obsolescence as may be expected from experience to result from the normal progress of the art.

Various rulings and decisions have been handed down by the bureau of internal revenue but none of them draws a clear line of distinction between depreciation from wear and tear and obsolescence, while some of them use the words "depreciation" and "obsolescence" as if they were synonymous.

It may be inferred, therefore, that the treasury regards obsolescence as a proper charge to current operations; but this stand is made upon the assumption that obsolescence is an accruing expense in the same sense as is physical wear and tear. We have endeavored to show that this is not true; that, on the contrary, from the nature of the case, obsolescence cannot accrue before it actually occurs, any more than a loss due to a fire can accrue before the fire occurs. Moreover, to charge obsolescence to the period preceding the time when the property actually becomes obsolete is in effect to say that since a new invention made in the future will greatly cheapen production we shall burden the present period not only with its due proportion of accruing expenses but we shall also add to such expenses the cost of scrapping good machinery in order to make way for machinery which will give still cheaper costs in the future.

In reality obsolescence cannot usually be foreseen for any considerable period of time because of the fortuitous character of the events which cause it, and it is about as logical to attempt to accrue future fire losses as to attempt to accrue future obsolescence costs. But there is this difference between a fire loss and an obsolete asset. The thing destroyed by fire is entirely destroyed and possesses no further producing capacity, whereas the obsolete asset invariably possesses additional producing capacity which is not utilized because it is not profitable to do so. The reason it is unprofitable to utilize it is that the cost of the old machine not yet recovered through depreciation charges to operations can be added to the cost of a more up-to-date machine and still enable production to be carried on at a smaller total cost than if the old machine were continued in use. Since every dollar of investment should be charged against output, it is reasonable that the cost of scrapping machinery not yet worn out be charged against the output of the period which gets the benefit of the more economical machinery.

Article 142 of regulations 45 provides that loss due to the voluntary scrapping of old buildings and machinery incident to their replacement is deductible as an expense in an amount representing the difference between their cost less salvage and the amount of depreciation previously written off. This is the correct procedure if the units scrapped are worn out, because all use value has been or should have been charged against past output, and the replacement has in no way been hastened by improved methods and new inventions. But if a physically good plant is scrapped because it ought to be superseded by more improved types of structure, the cost less salvage of such assets which has not been recovered through proper depreciation allowances based on estimated natural life or would not have been recovered had such proper allowances been made is not a current expense but an element in the true cost of replacement. This is true because it is not profitable to make the replacement unless such amount can be added to the direct cost of the unit which replaces the old one and still permit production to be carried on more cheaply than with the old unit. The new unit must justify itself by paying for the unrecovered portion of the one which it replaces in the same way that a new management must justify itself by assuming the unliquidated obligations of the old one. Unless such cost is recognized the burden of depreciation will not be distributed equitably over the proper periods.

Another way of putting the matter is to say that all costs of wasting assets must be recovered through depreciation rates based upon the natural physical life of such assets, and that whenever the cost of any asset is not so returned during the period of its usefulness because of the shortening of life from obsolescence such unrecovered cost should be recovered during the natural physical life of the asset which replaces it. Depreciation rates are presumably based on scientific estimates of the life of the asset in question, and it is possible, where a great amount of data regarding longevity of physical assets has been collected, to determine the normal expected life with great accuracy so long as no attempt is made to allow for factors which none can foresee with any degree of certainty, such, for instance, as accidents, obsolescence and other contingencies. Much has already been done in the way of establishing mortality tables for important classes of assets based upon extensive data derived from experience. Rates based upon such tables will be meaningless if we are arbitrarily to increase them to meet contingencies which by nature are uncertain and, indeed, may never occur. We have shown, moreover, that the cost of obsolescence is not one which accrues from the time an asset is installed until it becomes obsolete. It is rather in the nature of a deferred charge to be distributed over the period which follows its occurrence, or, in exceptional instances, to be charged directly to surplus.

This latter procedure, namely, considering obsolescence as a capital loss, should be followed only when no replacement takes place because the demand for the output has ceased. It is exemplified by the prohibition legislation which compelled brewers to scrap their plants and write off their goodwill.

Advisory tax board memorandum No. 44, which deals at length with the obsolescence of intangible assets, recognizes the fact that expiring time is not a measure of obsolescence, for it says:

> * * * In the great majority of cases depreciation is fairly measured by the effluxion of time. This is the ordinary rule, a departure from which should be allowed only when deduction provided thereunder does not meet the statutory requirement of reasonableness. * * * The situation presented by the distillers and dealers in liquor is highly exceptional. The total amount in respect of which they are entitled to claim a deduction is the cost of their goodwill, trade-marks, trade brands, or the value thereof, on March 1, 1913, if acquired prior thereto, excluding, of course, any tangibles acquired since that date, the expenditures for which were deductible in computing income for tax purposes. But as already indicated, the legislative situation had by January 31, 1918, reached a decisive point which completed the first stage in the obsolescence of these assets. (It was in January, 1918, that prohibition became a foregone conclusion because it was in that month that certain doubtful states adopted the prohibition amendment by decisive votes.) On that date a computable part thereof had become obsolete. The value of such assets rests upon the probable future income that will accrue to the owner thereof. Estimates of the probable amount of this income may vary, but there is no other known method by which the value can be computed. In view of the status of prohibition legislation on January 31, 1918, it is certain that upon that date the value of the goodwill, trade-marks, trade brands, etc., of distillers and dealers in liquor was reduced to the then present value of the income to be derived therefrom between that date and approximately January, 1920. (Prohibition became effective January 16, 1920.)

The memorandum continues:

Depreciation of intangibles now in question when computed upon the basis of the time rule does not meet the requirements of the statute, and therefore another rule must be found. * * * The rule of apportionment which most closely approximates the actual facts, and is therefore the most reasonable, is that under which the value of the intangibles on January 31, 1918, is spread on the time basis between that date and the date upon which prohibition became effective and the balance of the allowable deduction (measured by the difference between the value on January 31, 1918, and March 1, 1913), taken in accordance with the provisions of section 205 of the act and articles 1621-1625 of regulations 45 against the first taxable year ending on or after January 31, 1918.

As a consequence of this reasoning the advisory tax board concluded that obsolescence fully accrued on January 31, 1918, should be permitted as a deduction for the first taxable year ending on or after January 31, 1918, plus an additional deduction of such a proportion of the remaining value of the intangible assets as the period between January 31, 1918, and the end of the taxable year bore to the total interval between January 31, 1918, and January 16, 1920.

This recognizes that obsolescence does not accrue as do expenses but rather occurs as do losses, and that passage of time is not a proper basis upon which to determine its amount. It is here made to apply only to intangibles, and a careful reading of the memorandum leaves the impression that the full significance of the principles laid down was not realized. If one remembers that obsolescence is purely a question of value he must arrive at the conclusion that the principles which govern obsolescence are the same whether the asset to which the value or lack of value attaches is a tangible or an intangible asset; and it inevitably follows that in most instances where obsolescence really becomes effective it does so as at a given date, not over a period of years, as does depreciation. Consequently it must be regarded as either a loss or a cost of replacement depending on whether or not replacement is necessary.

Naval-stores Accounting

By V. E. Bennett

Notwithstanding the fact that the production of naval stores is highly important in the south and is one of the oldest industries in the United States, little is generally known regarding these commodities and the methods of accounting most suitable for the business.

For many years, the name "naval stores" has been applied to the by-products of the pinus palustris or yellow pine tree, consisting of tar or pitch, turpentine and rosin.

In the days when John Paul Jones and other noted American seamen were establishing an enviable reputation for the navy, and the first American merchant marine was struggling for a share of the commerce of the seas, tar or pitch was used to caulk hulls of wooden sailing vessels and was carried universally in ship chandleries.

Turpentine was also produced in the early days of the country's history, but tar or pitch was more valuable commercially and as a result of the demand arising from the navy and ocean shipping interests, the term naval stores was applied to all by-products of the yellow pine tree.

With the advent of steel-hulled, steam-propelled vessels the demand for tar or pitch practically ceased and turpentine and rosin, in the order named, became the major by-products of yellow pine trees. As a matter of custom, however, the term naval stores continued to be applied to the industry.

A market has been created for turpentine in the manufacture of paints, oils and rubber. Rosin is extensively used in the manufacture of paper, printing ink, leather, soap, cotton and woolen goods, some kinds of roofing paper, linoleum, sealing wax, medicinal compounds, axle grease and lampblack.

Naval stores are produced in the states where the yellow pine flourishes, viz.: North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and eastern Texas.

Florida is the largest producing state, especially in the northwestern section, bordering the Gulf of Mexico, and should continue to lead indefinitely, as a comparatively large supply of virgin timber, or timber which has not been chipped, is available in the central and southern sections of the state.

Efforts expended in endeavoring to find substitutes for naval stores or sources other than the yellow pine tree for their production have been unsuccessful. The sap of other trees does not have qualities essential for the production of these commodities.

With the exception of Russia, the production of turpentine and rosin is confined to the United States. Before the world war, Russia had some production in the vicinity of the Black sea, but the chaotic conditions prevailing in that unfortunate land have diverted even this trade to American dealers.

Large quantities of naval stores, therefore, are exported to England, Germany, France, Norway, Sweden and other European countries which engage in manufacturing the articles previously mentioned.

Persons concerned with the manufacture and sale of naval stores may be divided into three classes:

1. Producers: (a) independent
   (b) dependent
2. Factors
3. Dealers and brokers

Independent producers provide their own capital and, as a rule, sell their products direct to consumers.

Dependent producers are financed by factors and frequently lease timber from them for their operations.

The naval stores produced by dependent producers are usually pledged as security for these transactions and, as a result, the sale of their productions is controlled by factors.

Factors are marketing agencies which finance small producers, purchase and sell naval stores to dealers, brokers and others. Factors, moreover, realize profits from storage, inspection, insurance and selling charges.

Dealers and brokers purchase naval stores from producers and factors and sell to customers. Comments in this article relate to the former.

Woods Operations

The first operations in the production of crude gum, after the acquisition of suitable tracts of timber by purchase or lease, are to clear the woods and divide the trees into "crops," consisting of 10,500 "cups" or "boxes," with an allowance of five per cent. for erroneous count, or net crops of 10,000 cups or boxes. This division is made to facilitate the preparation of statistical data relating to production.

As applied to the naval-stores industry, the term box means a receptacle cut into the base of the tree where the gum accumulates after exuding from the tree when it has been "chipped." The box method was the original system for collecting crude gum in the trees, but, although still used occasionally, has been almost supplanted by the cup system.

Various methods are used in hanging cups, but perhaps the most desirable is a crescent-shaped strip of metal, known in the trade as an apron, under which is hung a metal or clay cup about three inches from the ground, with an average capacity of one quart of crude gum. As the crude gum collects on the "face" of the tree (the spot that has been chipped or hacked), it gradually flows over the apron into the cup.

After the cups have been hung or boxes cut, a V-shaped scar is made on the tree with the point directly over the apron so that the sap or crude gum can flow directly into the receptacle.

The operation of cutting into the trees is called chipping or hacking. It is repeated on the tree once each week during the season. About one-eighth of an inch of bark is removed at a time and the depth of the cut approximates one-half inch. The trees are seldom chipped for less than three years or more than five years. Trees chipped the first year are designated as virgin, those in the second year as yearling and in the third and succeeding years as buck or pulling.

Operations for the year begin with the flow of the sap and end when cold weather causes the sap to cease flowing. Prior to the suspension of operations, crude gum which has exuded but not found its way into the cups or boxes is scraped from the faces of the trees. In the interval, from the closing to the opening of the season, cups are removed, cleaned in bakelite plants situated in naval-stores shipping centers or repaired locally, and are raised to the desired height for the following season's operations. The woods are again cleared of brush, leaves and undergrowth in order to prevent forest fires, as crude gum coming from the faces of trees is very inflammable.

Hauling Operations

After the cups or boxes have been filled the contents are dipped or scraped into dip buckets, which, in turn, are emptied into dip barrels having air-tight heads. The dip barrels are then transported by motor-trucks or wagons to the distilleries or stills.

Stills are located in the woods for new operations, but as the timber is cut out in near-by territory and timber leases expire, the distance for transporting crude gum increases and the hauling expenses are proportionately greater.

Still Operations

The still of a naval-stores plant is constructed from copper with an average capacity of thirty gallons and the cap is connected with a coil of pipe or worm enclosed in a wooden condensing tank filled with cold water.

Water is added to the crude gum after it has been placed in the still and direct heat has been applied. Wood is used for fuel. As the vapor rises from the contents of the still, it circulates through the worm and is condensed into turpentine and water. Inasmuch as turpentine is lighter than water, it rises to the top of the tank at the end of the worm. The water is then permitted to run out through a hole or drain pipe near the bottom of the tank and the turpentine is transferred to storage tanks.

The residue, or hot rosin, remaining in the still is discharged in liquid form through three sets of strainers covered with batting to remove impurities collected with the crude gum. A small percentage of rosin clings to the batting and is sold as a by-product.

While in liquid form, the rosin is dipped and poured into barrels, and, after it has cooled and hardened, the barrels are removed to the yard to await grading and weighing, under the supervision of state agencies, and shipment, either to consumers or to storage yards at the seaboard.

Accounting Methods

Naval-stores operations are seasonal and costs therefore are trustworthy only when compiled for the entire season or with due allowance for expenses that will be incurred during the remainder of the season. Owing to the violent fluctuations often occurring in naval-stores prices, the management should have statements prepared frequently in comparative form, setting forth the cost of production for both turpentine and rosin. It is also advisable to have statements of the financial condition of the business, showing the disposition of earnings.

In order to determine correct unit costs, an accurate record must be kept of the details of the manufacturing expenses and quantities produced. The details of the woods, hauling and still expenses should be carefully distributed to the products on an equitable basis. The expenses applicable to the commodities after leaving the still are charged direct. Following the close of the season but prior to the end of the fiscal year, many of the expenses are applicable to the ensuing year's operations and should be treated as deferred charges.

Expenses incurred in recruiting labor should be segregated and charged to the operation for which the labor is secured. Rentals and other income from quarters or camps should be applied as contra items to the woods and still-quarters expenses.

The payroll book should be a columnar record so arranged that wages can be distributed to the various operations, in addition to furnishing information as to the laborers' names, rates, total wages due, deductions for wages advanced, scrip purchased, discounts on wages and purchases from commissaries, besides the net wages due. Disbursement of wages is made by cheques or scrip payments which are cashed at a discount by the commissaries.

Invoices for supplies purchased from vendors should be audited and charged to inventory accounts. Supplies are issued upon receipt of requisitions signed by stillmen or the foremen in the woods, called woods riders, approved by the superintendent or manager. The cost of supplies consumed should be charged to expense accounts and the inventory accounts should be credited. The inventory record should also have accounts for turpentine, rosin and batting dross. These accounts should be charged with the production and credited as shipments are made. The monthly trial-balance of the inventory record should agree with the general ledger inventory controlling accounts and should be adjusted periodically to the physical inventories.

Accounts for woods labor, woods supplies, woods expenses, hauling labor, hauling supplies, hauling expenses (from the woods to the stills), still labor, still supplies, still expenses, shipping expenses, selling expenses, farm expenses, administrative and general expenses and commissary expenses should be kept in an expense ledger. A controlling account should be kept in the general ledger for the expenses of each still operated. Likewise, the expense ledger should be subdivided to show the details of the expenses of each still.

The charges should be entered in the expense ledger daily. At the end of each month the totals should agree with the general ledger controlling accounts.

A plant ledger is desirable in the calculation of depreciation. Separate accounts are kept for the cost of the units of plant and for reserves for depreciation. Provision should be made on the plant ledger sheets for a description of each item, its probable life, rate of depreciation and other information of interest to the management.

Depreciation rates on buildings, machinery and equipment, woods quarters and commissaries are exceptionally high, ranging from 10 to 33 1/3 per cent., depending upon the character of the various units, the terms of the leases or the probable life of the operations. In deciding upon rates of depreciation, consideration should be given to the stumpage in surrounding territory which may be leased or acquired by purchase for future operations.

The plant ledger trial-balance at the end of each month should be in agreement with the general ledger controlling accounts for plant and equipment and reserve for depreciation.

If timber leases are purchased for a term of years, the cost should be amortized over the effective period, otherwise the annual lease rentals are written off. The operations should be charged with their proportion of stumpage in lieu of timber lease rentals if standing timber is owned. Some lumber manufacturing companies also conduct naval-stores operations and in such cases this department of the business is charged with its proportion of stumpage and the sawmill expenses are reduced accordingly.

Classification of Profit-and-Loss Accounts

Sales and sales deductions:

Sales: Rosin
Turpentine
Batting dross
Allowances on sales
Freight outward

Expenses

Woods expenses:

Clearing woods: Wages
Supplies
Expenses
Counting and drifting, wages
Distributing cups, wages
Cup hanging: Wages
Supplies
Expenses

Cup raising: Wages
Supplies
Expenses
Chipping: Wages
Supplies
Expenses
Dipping: Wages
Supplies
Expenses
Removing cups: Wages
Scraping: Wages
Supplies
Expenses
Raking and burning: Wages
Supplies
Expenses
Cup cleaning, wages
Repairing cups
Bakelite plant expenses
Bakelite plant earnings (contra)
Recruiting expenses, woods labor
Woods quarters or camp expenses:
(a) Repairs
(b) Insurance
(c) Depreciation
(d) Miscellaneous expense
(e) Rentals and other income from woods quarters or camps (contra)
Miscellaneous woods expenses
Proportion of stumpage
Timber lease rentals
Depreciation: Woods tools
Gutters
Cups and aprons
Bakelite plant

Hauling Expenses from Woods to Stills:

Hauling: Wages
Supplies:
(a) Feed
(b) Gasoline
(c) Motor oils
(d) Motor greases
(e) Auto repair parts
(f) Veterinary supplies
(g) Miscellaneous hauling supplies and expenses

Expenses:

- (a) Horse shoeing
- (b) Veterinary expense
- (c) Repairs: Stable
- (d) Wagons and harness
- (e) Auto trucks and cars
- (f) Miscellaneous hauling expenses
- (g) Insurance: Stable
- (h) Horses, mules and cattle
- (i) Wagons and harness
- (j) Auto trucks
- (k) Depreciation: Bridges
- (l) Stable
- (m) Horses, mules and cattle
- (n) Wagons and harness
- (o) Auto trucks
- (p) Dip barrels

Still Expenses:

Still: Wages, stiller and firemen

Supplies:

- (a) Fuel
- (b) Batting dross expense
- (c) Miscellaneous still supplies

Expenses:

- (a) Still repairs
- (b) Water-works expense
- (c) Recruiting expenses, still
- (d) Miscellaneous still expenses
- (e) Insurance, still and still equipment
- (f) Depreciation: Still buildings
- (g) Stills and equipment

Yard labor: Wages

Cooperage: Wages

Materials and supplies:

- (a) Staves
- (b) Heading
- (c) Hoop iron
- (d) Glue
- (e) Miscellaneous cooperage supplies

Cooperage expenses:

- (a) Repairs, cooper shop
- (b) Miscellaneous cooperage expenses
- (c) Depreciation, cooper shop
- (d) Insurance, cooper shop

Still quarters expenses:
- (a) Repairs
- (b) Miscellaneous still quarters expenses
- (c) Rentals and other income from still quarters (contra)
- (d) Insurance
- (e) Depreciation

Shipping Expenses

Loading: Wages
Supplies
Expenses
Turpentine containers
Tank car rentals
Miscellaneous shipping expenses
Depreciation, tank cars

Selling Expenses

Salesmen's salaries
Commissions
Traveling expenses, selling
Storage
Inspection
Market information
Interest and exchange
Miscellaneous selling expenses
Insurance

Administrative and General Expenses

Details

Farm Expenses

Details

Commissary Expenses

Details

Classification of Plant-Ledger Accounts

Standing timber
Woods tools
Cups and aprons
Bakelite plant
Employees' quarters, woods
Roads and bridges
Horses, mules and cattle
Wagons, buggies and harness
Auto trucks and automobiles
Dip barrels
Still sites
Stills and still equipment
Still tools

Classification of Plant-Ledger Accounts

Cooperage buildings
Cooperage equipment
Water-works plants
Blacksmith shops
Employees' quarters, stills
Lighting systems
Office buildings
Office furniture and equipment
Telephone lines
Shipping stations
Railroad sidings
Tank cars
Storage tanks
Commissary furniture and equipment
Cut-over lands
Farms
Reserve for stumpage
Reserves for depreciation

The JOURNAL *of* ACCOUNTANCY
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A. P. RICHARDSON, *Editor*

EDITORIAL

The Institute and the Certified Public Accountant

Certain persons, either ill-informed or evilly disposed, have been journeying up and down the face of the land asserting with a great deal of vehemence that the American Institute of Accountants has done nothing and is doing nothing to sustain the prestige which attaches to the title "Certified Public Accountant" as used in the United States.

As a rule it is unnecessary and frequently unwise to refute obviously malevolent attacks of this kind, but inasmuch as it is quite possible that an injury might be done not only to the Institute but to the certified public accountant as well it is probably wise to explain as briefly as may be some of the facts of the case.

In making this explanation we shall quote largely from a confidential bulletin issued by the executive committee to all members and associates of the Institute.

The first C. P. A. law in the United States was enacted in New York in 1896. This action was followed within the next few years by several other states and the movement spread with such rapidity that in 1920 every state in the union had a certified public accountant law of one kind or another on its statute books. Many of these laws were weak intrinsically and others were weakly administered. There was no kind of uniformity of standard and no more than two laws were identical in phraseology. Most of them, however, followed the general lines of a model bill drawn up by the American Association of Public Accountants and subsequently approved by its successor, the American Institute of Accountants. From the time of the American Association's union with the Federation of Accountants in 1905 a great part of the association's activities was concerned with the safeguarding of the interests of the profession by encouraging good legislation and opposing bills which would have led to bad results. In most states the influence of the American Association was directly felt in the enactment of C. P. A. laws.

"When the Institute was founded in 1916 it was generally admitted that owing to the great number of C. P. A. laws intrinsically weak or badly administered, the whole value of the certified public accountant certificate was in serious jeopardy. One of the chief reasons for the formation of the Institute was the hope that by establishing an entirely professionally governed organization something could be done to offset the danger existing in a variety of standards or lack of standards."

Shortly after the formation of the Institute it was resolved that an effort should be made to bring about a standardization of accounting examinations throughout the country and to this end the board of examiners of the Institute offered to all state boards the use of the Institute's questions and the services of the board of examiners in reviewing the results of examinations. This offer was accepted by a few states at first, but today, within less than five years of the first examination, thirty-eight of the forty-eight states of the Union have adopted the Institute examinations and others are giving the matter consideration which will doubtless lead to acceptance of the plan of coöperation. To say, therefore, that the Institute has done nothing to support the C. P. A. designation is utterly false. According to the circular from which we quote

"Had it not been for the work of the Institute in maintaining the dignity of the C. P. A. degree since the Institute was formed there might not be the nation-wide recognition of the value of the degree which now calls for defense."

We should go further in this direction and say definitely that but for the Institute the C. P. A. degree would today be a thing of forty-eight varieties, many of which would be utterly unworthy. Among the thirty-eight states now using the Institute's examination are several whose requirements prior to the adoption of the plan of coöperation were entirely inadequate.

Now there remain only two unprotected portions of continental United States, namely, Alaska and the District of Columbia. The probability of activity in the accounting profession in Alaska seems comparatively remote. In the District of Columbia, however, there is increasing interest in the practice of accountancy, largely because of the fact of federal taxation; and therefore it seems of the utmost importance that there should be protective legislation. The need for such protection has been emphasized recently. At this point the Institute has again come to the assistance of the certified public accountant and has been largely instrumental in the introduction of a bill providing for the creation of a C. P. A. board in the District of Columbia. This bill was introduced in the senate by Senator Capper and in the house by Representative Zihlman.

Bearing in mind that the Institute does not grant and cannot grant certified public accountant certificates and that the possession of such certificates is not a prerequisite for membership it must appear to the impartial observer that the Institute has gone to considerable lengths to foster and protect the C. P. A. designation.

As we have said, it is not always expedient to refute calumny. In this instance, however, the foregoing facts are germane and their statement probably desirable.

American Accountancy Abroad

The Institute of Chartered Accountants of England and Wales held its triennial autumnal meeting in London during October. For the first time in history the accountancy profession of America was represented at an English gathering of this kind and a specially appointed delegate of the American Institute of Accountants took part in the proceedings.

W. Ernest Seatree, formerly of Chicago, was delegated by the president of the American Institute to represent the organization. Mr. Seatree was accorded a cordial welcome and his remarks at one of the luncheons were received with enthusiastic approval. A spirit of the utmost friendliness and cordiality reigned throughout the meeting.

The following report of Mr. Seatree's remarks will doubtless be of interest to readers of THE JOURNAL OF ACCOUNTANCY:

It gives me the greatest pleasure, on behalf of the American Institute of Accountants, to express to you a deep sense of appreciation of the great courtesy and kindness which this Institute has extended across the seas, in asking American accountants to send a representative here on this notable occasion—the first autumnal gathering since the war. The American Institute is keenly sensitive of a courtesy of that kind, and to me it is a particular honor and source of satisfaction to be the one chosen to carry this message to you. I, personally, am in somewhat of a unique position, being at the moment a British-born American citizen, a member of the English Institute, a member of the American Institute, and incidentally of the Canadian Association. I have been living in America for the last twenty years, but recently on account of a rearrangement in my firm, I have come to live on the continent. I have just recently resigned as a member of the council of the American Institute, but the president has asked me to undertake this mission, which I am extremely delighted to do. It is the first occasion on which I have had an opportunity of attending one of these gatherings. I do not wish to detain you by a long discourse on professional accountancy in America. There are one or two points, however, in which I think you would be interested. The Institute in America owes a great deal to the British Institutes and their members. I do not think that there is an accountant of any standing in America who would not recognize that. We owe a great deal to the British accountants, who have gone over there, and whose names are doubtless familiar to you. Some of the fundamental text-books used there are the actual English text-books, and others are based on them. Moreover, you are regarded as an Institute which has set standards of ideals. For many years it was a big struggle in America to develop those standards, and to raise them to the level at which they should be and will be, and the influence of the English Institute has been of great help. For that the accountants of the United States are thankful. The profession in America has developed in a phenomenal manner during twenty years. At one time there were various state societies. The consequence of that was that there was no direct control of membership. Prior to that again there were two organizations—the American Association and the Federation—somewhat similar to the two organizations over here. They were merged sixteen years ago into one, which is known today as the American Institute of Accountants. Each state has its own laws, and the laws differ in some respects. We had a variety of standards there, but the organization of the American Institute has brought about standardization, as most of the states have adopted the Institute's examinations, the result being that young men can become associates of the Institute and certified accountants by one examination instead of two. The membership of the American Institute is about 1,500, but it does not necessarily include all practising accountants, though it comprises nearly all the principal ones. The profession itself has grown enormously in America during the last forty years, and especially during the war and since, owing to a large extent to tax questions. Prior to that, it is a question whether it was really a profession. Here is a story of an incident which happened to one of my partners in Chicago, when he was residing at an hotel many years ago. He happened to say that he was an accountant. Another man said, "Oh, I thought you were a respectable business man." That shows you the sort of reputation which an accountant had in America ten or twenty years ago. The development of the profession has gone on by leaps and bounds, and, while there are few laws requiring corporations to have auditors, nevertheless, the practice has developed until there is an enormous volume done. The Institute, in an attempt to keep pace with requirements during the last few years, has undertaken some rather important departures. Some two years ago it acquired a building of its own and two or three years ago it started an endowment fund, which to-day has reached almost $200,000. That money is applied in a unique way. One of the objects of the endowment fund is to help country members who have, perhaps, a small practice and have not the advantage of a central organization. By means of the machinery provided by the endowment fund, provincial members who have a problem or a question on which they would like advice are enabled to communicate with the Institute in New York and submit their questions. These questions are then submitted, without the name of the questioner, to a committee of leading practitioners, who give their services. These practitioners answer the question, or give their opinions as to the solution of the problem, and that is returned to the member interested. During the last two or three years we have helped country members, and the number of questions so answered has reached several hundreds each year. The Institute has also published a book, a sort of directory or dictionary of accounting literature, which has been made possible by the income of the endowment fund. It is a large book, and contains a mass of extraordinary detail of research work. In addition to that, the Institute recently took over the control and management of THE JOURNAL OF ACCOUNTANCY, which is the official publication of the accountants in the United States. The profession itself in America received a good deal of recognition during the war and as a result of the war, as was the case on this side, through the appointment of leading accountants to important posts. There is another important point which I should like to mention, and that is the expansion of American accounting firms overseas. I understand that to-day there are four firms besides my own with offices in Paris. There are other firms with offices in Shanghai and Cuba. It is quite a recent development, and it may bring up the question between the various Institutes as to there being some sort of reciprocal arrangement between English accountants and American accountants. Any British accountant who happens to visit the United States should make a point of making himself known to the secretary, who has an office in New York. The Institute will be glad to place its facilities at the disposal of any visiting practising accountants.

For Federal Incorporation

On December 9, 1921, there was introduced in the house of representatives of the federal congress a bill (H. R. 9446) providing for incorporation of the American Institute of Accountants. The bill was referred to the committee on the District of Columbia and ordered printed.

Persons who have received word of the introduction of this bill may have wondered why the Institute was seeking incorporation by federal enactment. Others may have come to the conclusion that the Institute had been operating without a charter of any kind.

The truth is that the Institute has been incorporated under the law of the District of Columbia which is, of course, controlling only in the District. The District was selected as the place of incorporation in 1916 to avoid the probable accusation of localization which might have followed incorporation in any state. At the time there were few accountants in the District of Columbia and there seemed no reason to believe that there would ever be any great number engaged in public practice there.

During the five years of its existence the Institute has grown in activity and influence so rapidly that it appeared to members of the council of the Institute that the time had come when there should be a charter of more general scope and greater effect than is possible under the District law. Accordingly, a committee was appointed to prepare a bill for the incorporation of the Institute and to seek its enactment in congress.

The original resolution of the council of the Institute provided for a change in title, but the committee in view of developments and also partly because of opposition to the proposed change of name decided to prepare a bill providing for the incorporation of the Institute under its now well-established name.

There are many precedents for federal incorporation and it is hoped that the present bill will not meet with opposition. The welfare of the profession is concerned in the enactment of legislation which will give the widest recognition to the organization.

For the information of our readers we present herewith the text of the bill:

67TH CONGRESS,
2D SESSION. H. R. 9446

IN THE HOUSE OF REPRESENTATIVES.

DECEMBER 9, 1921.

Mr. RODENBERG introduced the following bill; which was referred to the Committee on the District of Columbia and ordered to be printed.

A BILL

To Incorporate the American Institute of Accountants.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the persons following, namely: Carl H. Nau, John B. Niven, Arthur W. Teele, Joseph E. Sterrett, John F. Forbes, J. Porter Joplin, Waldron H. Rand, Frederick A. Ross, Elijah W. Sells, Frederic A. Tilton, William Jeffers Wilson, William R. Tolleth, Ernest Crowther, Edward E. Gore, Charles S. Ludlam, Overton S. Meldrum, Adam A. Ross, T. Edward Ross, William P. Hilton, Frederick H. Hurdman, James D. M. Crockett, W. Sanders Davies, Page Lawrence, Ernest Reckitt, William A. Smith, Edward L. Suffern, J. S. Morris Goodloe, Elmer L. Hatter, Clifford E. Iszard, J. Edward Masters, James S. Matteson, Robert H. Montgomery, Albert T. Bacon, Joseph E. Hutchinson, senior, Charles E. Mather, William R. Mackenzie, Walter Mucklow, John R. Ruckstell, and Lewis G. Fisher, their associates and successors duly chosen, are hereby incorporated and declared to be a body corporate by the name, title, and style of The American Institute of Accountants, and by that name shall be known and have perpetual succession, with the powers, limitations, and restrictions herein contained.

SEC. 2. That the objects for which said corporation is incorporated shall be—

(a) To promote education in the science of accounts, and in the practical application of that science, throughout the United States of America and its territories and possessions.

(b) To maintain a library of works treating upon the subject of accountancy and upon related subjects and to encourage the production of such works.

(c) To publish books, pamphlets, and periodicals for the increase of information and education in the science of accounts.

(d) To establish and maintain standards of education for, and to pass upon and determine the qualifications of, persons applying to it for membership.

(e) To issue its diplomas attesting the degree of proficiency in the science of accounts of such persons as may submit themselves to it for examination and to confer upon such persons as it may deem entitled thereto such degree, title, or designation as is not inconsistent with existing laws or with established educational ethics.

(f) To receive and hold by gift, bequest, devise, grant, or purchase any real or personal property and to use and dispose of the same for the purposes of the corporation.

SEC. 3. That the government of said corporation shall be vested in a council composed of not less than thirty-nine members, not more than six of whom shall be residents of the same state or territory.

SEC. 4. That no part of any net income or profit earned or realized by said corporation shall inure to the personal gain of any individual or be devoted to any purpose foreign to the objects herein set forth.

SEC. 5. That said corporation may make all by-laws, rules, and regulations not inconsistent with law that may be necessary or expedient to accomplish the purposes of its creation, and it may hold real estate and personal property in the United States and any foreign country for its proper use and purposes to an amount not exceeding $2,000,000.

The principal office of said corporation shall be in the city of New York, in the state of New York, but it may establish and maintain offices and hold regular or special meetings in such places as its by-laws may provide.

Income-tax Department

EDITED BY STEPHEN G. RUSK

In the December issue of THE JOURNAL OF ACCOUNTANCY attention was directed to a recommendation of the committee on appeals and review relative to the conditions that govern in cases of those taxpayers who are "officers or employees of a state or a political subdivision." This recommendation contains a concise and clear definition and is important to those who are likely to come in contact with taxpayers who have this problem to solve. Through inadvertence the recommendation was not printed in the December issue but it will be found in the present number.

Taxpayers whose 1917 returns were based upon invested capital that included any inflation or appreciation of value are given until January 15, 1922, to make amended returns and pay the additional tax. This additional time is the subject matter of treasury decision No. 3243, which amends treasury decision No. 3220. The latter decision, dated August 26, 1921, had set the limit for filing these amended returns and for payment of the additional tax at November 24, 1921.

Another decision which will be found well worth reading is No. 3252 which comprehends a decision by Judge Hand of the United States district court, southern district of New York, in the case of *Henry R. Towne versus Richard J. McElligott.* The outstanding feature of this decision that will appeal to accountants is the manner in which the court decides that profit should be computed upon the sale of stock that had come into possession of the taxpayer by purchase prior to March 1, 1913, by purchase subsequent thereto and by stock dividend. The court apportions the profit among these three classes in an ingenious and logical manner, not in accordance, however, with usual accounting methods. Another feature of interest in this decision is that the court does not view a tax of 72% of the profit on this transaction as confiscatory. It would seem that few taxpayers would dispose of property if they were to receive only 28% of the profit accruing from such sale. Of course, the court's decision may have been somewhat influenced by the fact that when the tax on this transaction was merged with the tax upon the particular individual's other income, the whole represented a tax of only 50% of the combined income.

TREASURY RULINGS

SECTION 213(b), ARTICLE 85: Compensation of state officers. A. R. R. 664 (Sol. Op. 122)

> Recommended, in the appeal of A, that the action of the income-tax unit in holding that certain income received for services rendered by him to a state and political subdivision thereof constitutes taxable income under the revenue act of 1918, be sustained, and accordingly, that the taxpayer's appeal be denied.

The committee has had under consideration the appeal of A, from the action of the income-tax unit in holding that certain items of income received in 1918 for services rendered constituted taxable income and not such income as is exempted by section 213(b), revenue act of 1918 and article 85 of regulations 45.

The question involved being one for legal determination in the light of the attendant facts, the case was submitted to the solicitor, whose opinion is fully set forth in solicitor's opinion 122, dated September 12, which is here quoted.

SOLICITOR'S OPINION 122.

INCOME TAX—SECTION 213, REVENUE ACT APPROVED FEBRUARY 24, 1919.

EXEMPTION—COMPENSATION OF OFFICERS AND EMPLOYEES OF A STATE OR A POLITICAL SUBDIVISION THEREOF.

> Compensation received for services rendered to a state or a political subdivision thereof is included in gross income unless the person receives such compensation as on officer or employee of a state or political subdivision.
>
> An officer is a person who occupies a position in the service of the government, the tenure of which is continuous and not temporary and the duties of which are established by law or regulations and not by agreement.
>
> An employee is one whose duties consist in the rendition of prescribed services and not the accomplishment of specific objects, and whose services are continuous, not occasional or temporary.

The question is presented as to whether the compensation received by A for services rendered the state of Y and political subdivisions thereof is exempt from the income tax.

The facts presented are as follows: The taxpayer was in the employ of a commission to consolidate the laws of the state of Y as an expert advisor on certain laws under an arrangement by which he gave his entire time when called upon for a definite sum per hour for the time actually expended. He filed a statement monthly and the amount due him was paid by the state treasurer from an appropriation marked "salary." The compensation received from this source amounted to x dollars.

The taxpayer also served as commissioner on the Z grade crossings. He was appointed by the court for determining the advisability and method of abolishing certain grade-crossings. He was appointed in accordance with the laws of the state of Y, which authorizes a court on the filing of a petition by the attorney general to appoint three disinterested persons as commissioners for the purposes above stated. They are required by statute to make their report to the court, which, if confirmed, becomes final. Such commissioners are appointed to act only in a particular case.

The taxpayer also rendered legal services to the town of R and the city of S on particular occasions and in particular matters. It is also stated by the taxpayer that he has been counsel for the county of T for several years, but is not paid a salary, receiving compensation on the basis of services actually rendered. No facts are presented with reference to this item of compensation upon which an opinion can be based as to whether the taxpayer was an officer or employee of such county. Consequently, no opinion is herein expressed in regard to the compensation which the taxpayer received from the county of T for such services.

It is not sufficient, in the opinion of this office, to show that a person rendered service to and received compensation from a state or political subdivision thereof to entitle such compensation to exemption from income tax. It must be shown that in rendering such service he was an officer or employee thereof. The compensation of officers and employees of a state or political subdivision thereof was specifically exempted in the revenue acts of 1913, 1916 and 1917. The exemption as to such compensation in those acts was plainly an interpretation by congress of the decisions of the United States supreme court as to the taxability of federal agencies by states and of the taxability of state agencies by the federal government, and was merely expressive of what Congress considered it had no right to tax by virtue of such supreme court decisions. (*McCulloch v. Maryland,* 4 Wheat. 316; *Dobbins v. Commissioners,* 16 Pet. 436; *Collector v. Day,* 11 Wall. 113).

The revenue act of 1918, although containing no provisions as to exemption of such compensation, has been interpreted by the attorney general to exempt the same compensation as was specifically exempted by the former acts, for the reason that congress had no power to tax the same (31 Op. Atty. Gen. 441). The revenue act of 1918 has been similarly interpreted by the treasury department to apply only to the compensation received by officers and employees of a state or political subdivision thereof (art. 85, Reg. 45, 1920 ed.), and it is specifically provided in article 37, Regulations 45, that any profit received from a state or political subdivision thereof by an independent contractor is taxable income. In the above cited cases of *McCulloch v. Maryland; Dobbins v. Commissioners,* and *Collector v. Day,* the United States supreme court held that the federal government had no power to tax the instrumentalities of states in the execution of their governmental functions and that the states had no power to tax such instrumentalities of the federal government. The court in the case of *Battman v. Warwick* (102 Fed. 127) said that the exemption of compensation of officers and employees of states or political subdivisions thereof contained in the revenue act of 1898 was "undoubtedly inserted in order to conform to these decisions."

In order, therefore, that the compensation received by A may be entitled to exemption from the income tax, it must be shown that he was an officer or employee of the state of Y or of a political subdivision thereof.

Numerous cases have been considered by the courts in which the question involved was whether a person was an officer or an employee of the government or of another person. There is one thought which runs through all the decisions on the question, and that is that in order to be an officer or employee it must appear that the duties performed by such person are of a continuous nature and are not occasional, temporary, or specific in character or object.

In rendering the services to the commission for the consolidation of laws for the state of Y, acting as commissioner for the Z grade crossings, the services rendered the town of R and the city of S, it is not claimed by the taxpayer that he was vested with offices, the tenure and duties of which were established by law, and such was plainly not the case. With reference to the services rendered to the commission for the consolidation of laws, it is stated that he was employed by the commission to give his entire services when called upon for a stated sum per hour, but he was not required to respond to the call of the commission, and he was not under its direction, except in the specific instances when he desired to serve it.

Nor were the services rendered as commissioner on the Z grade-crossings matter performed in the capacity of an officer. The term "officer" is inseparably connected with an office. There can be no officer without an office. There was no office of commissioner which had been created and was existing. The position was brought into being only for a special and particular case. It was a single and isolated duty and not an office having any tenure. No oath was required to be taken as such commissioner. The place remains in existence only during the pendency of each particular case. The duties are not regular and continuous. Such a commissioner has no general duties to perform which extend over any case other than as he is selected to act in that particular case.

With reference to the services rendered to the town of R and the city of S, it is not shown that the taxpayer occupied any office while rendering such services. His services were in isolated transactions and each occasion when he rendered services was a separate and closed transaction. The services were limited in duration and specific in their objects.

It was stated by the United States supreme court in the twenty-per-cent. cases (20 Wall. 179):

A government office is different from a government contract. The latter from its nature is necessarily limited in its duration and specific in its objects.

Employment under a contract to do an act or perform a service does not constitute one an officer. This was specifically held in *United States v. Maurice,* Fed. Cases, No. 15747, wherein the court said:

An office is defined to be a "public charge or employment" and he who performs the duties of the office is an officer. If employed on the part of the United States he is an officer of the United States. Although an office is "an employment," it does not follow that every employment is an office. A man may certainly be employed under a contract, express or implied, to do an act or perform a service without becoming an officer. But if a duty be a continuing one, which is defined by rules prescribed by the government, and not by contract, which an individual is appointed by government to perform, who enters on the duties appertaining to his station without any contract defining them, if those duties continue, though the person be changed, it seems very difficult to distinguish such a charge or employment from an office, or the person who performs the duties from an officer.

And in *United States v. Hartwell* (6 Wall., 385, 393), in which the supreme court held that:

The employment of the defendant was in the public service of the United States. He was appointed pursuant to law and his compensation was fixed by law. Vacating the office of his superior would not have affected the tenure of his place. His duties were continuing and permanent, not occasional or temporary. They were to be such as his superior in office should prescribe.

In the case of *Auffmordt v. Heddon* (137 U. S., 310) the court had before it for consideration whether a "merchant appraiser" appointed by the collector of customs under the authority of revised statutes 2930, and whose compensation, though fixed by statute, was payable by the importer, was an officer of the United States, and the court said:

He is selected for the special case. He has no general functions, nor any employment which has any duration as to time or which extends over any case further than as he is selected to act in that particular case * * * he has no claim or right to be designated.

In the case of *United States v. Germaine,* the United States supreme court said:

If we look to the nature of defendant's employment, we think it equally clear that he is not an officer. In that case the court said the term embraces the ideas of tenure, duration, emolument and duties, and that the latter were continuing and permanent, not occasional or temporary. In the case now before us, the duties are not continuing and permanent, and they are occasional and intermittent. The surgeon is only to act when called on by the commissioner of pensions in some special case, as when some pensioner or claimant of a pension presents himself for examination. He may make fifty of these examinations in a year, or none. He is required to keep no place of business for the public use. He gives no bond and takes no oath, unless by some order of the commissioner of pensions of which we are not advised.

No regular appropriation is made to pay his compensation, which is $2 for every certificate of examination, but it is paid out of money appropriated for paying pensions in his district, under regulations to be prescribed by the commissioner. He is but an agent of the commissioner, appointed by him, and removable by him at his pleasure, to procure information needed to aid in the performance of his own official duties. He may appoint one or a dozen persons to do the same thing. The compensation may amount to $5 or $500 per annum. There is no penalty for his absence from duty or refusal to perform, except his loss of the fee in the given case. If congress had passed a law requiring the commissioner to appoint a man to furnish each agency with fuel at a price per ton fixed by law high enough to secure the delivery of the coal, he would have as much claim to be an officer of the United States as the surgeons appointed under this statute.

With reference to the above decision, the United States supreme court in the case of *United States v. Mouat* (124 U. S., 303), said:

What is necessary to constitute a person an officer of the United States in any of the various branches of its service has been very fully considered by this court in *United States v. Germaine* (99 U. S., 508) * * *. We do not see any reason to review this well-established decision of what it is that constitutes an officer.

Applying the principles of law above enunciated to the facts in this case, it is clear that the taxpayer in rendering services to the state of Y and political subdivisions thereof was not an officer of the state or political subdivisions. As was said by the United States supreme court in the case of *Auffmordt v. Heddon,* supra, he was selected for the special case. He had no general functions or any employment which had any duration as to time or which extended over any case other than as he was selected to act in that particular case. He occupied no position in the service of the state or political subdivision, the tenure and duties of which were established by law or regulations. He was not required to take an oath which is required of all officers of that state, nor was he commissioned. In the rendition of the services in the capacities set forth, the taxpayer did not exercise any function of government either legislative, executive, or judicial. No part of the state sovereignty was delegated to him.

In view of the foregoing, this office is of the opinion that A in rendering services to the commission for the consolidation of laws, as commissioner in the Z grade crossings matter, to the town of R or the city of S was not an officer of the state of Y or of any political subdivision thereof. The question is then presented as to whether the taxpayer was an employee of such state or political subdivision.

In order to be an employee of the state or a political subdivision thereof, it must appear that the relation, to some extent at least, of master and servant existed between the employer and the employee. In the case of *Vane v. Newcombe* (132 U. S. 133), the United States supreme court set forth a fundamental distinction between the relation of employer and employee and that of a contractor. In that case the court said:

* * * It seems to us that Vane was a contractor with the company and not an employee. We think the distinction pointed out by the court is a sound one, namely, that to be an employee within the meaning of the statute Vane must have been a servant bound in some degree at least to the duty of a servant and not as if he were a mere contractor bound only to produce or cause to be produced a certain result, a result of labor to be sure, but free to dispose of his own time and personal efforts according to his pleasure without responsibility to the other party.

Employment of a person in a particular transaction to accomplish a specific result, who, while in the execution thereof is not under the direction of the employer is not an employee. An employee is one engaged in the rendition of services and not in the accomplishment of specific results. It is essential that there be some continuity to the employment and that the duties be not occasional or temporary and not specific in character or object as a result of contractual relations.

In *Lewis v. Fisher* (26 L. R. A. 278), the Maryland court of appeals held as follows:

The terms "officers" and "employees" both alike, refer to those in regular and continual service. Within the ordinary acceptation of the terms, one who is engaged to render service in a particular transaction is neither an officer nor an employee. They imply continuity of service, and exclude those employed for a special and single transaction.

The question whether an attorney serving a railway was an employee was presented to the supreme court in *Louisville, etc., Railway v. Wilson* (138 U. S. 501, 505), and decided as follows:

> The terms "officers" and "employees" both alike, refer to those in regular and continual service. Within the ordinary acceptation of the terms, one who is engaged to render service in a particular transaction is neither an officer nor an employee. They imply continuity of service, and exclude those employed for a special and single transaction. An attorney of an individual, retained for a single suit, is not his employee. It is true he was engaged to render services; but his engagement is rather that of a contractor than that of an employee.

It is stated by the taxpayer that he has been in the regular and continuous employ of the commission for the consolidation of laws for the past four years. It does not appear, however, that he was under any obligation to render any service to the commission except on the particular occasions when it suited his convenience to do so. It would appear that he would only fail to receive his compensation if he failed to render the services when called upon. If it be established as a fact that he was called upon so frequently as to remain in the continuous employ of the commission, this would not constitute such employment a continuous employment, since it appears that each time he was called upon represented a separate transaction. He was not under obligations by virtue of his engagement to do anything, and on such occasions as he was called upon he rendered services to the commission because of his desire to do so on the particular occasions. The statement, therefore, that the taxpayer was in the regular and continuous employ of the commission becomes immaterial in view of the fact that he was kept in such continuous employ by virtue of separate undertakings.

It appears to this office from the facts stated that the taxpayer was but an agent of the commission to consolidate laws and was not an arm of the state for the exercise of a governmental function. He furnished information to the commission at their request. The relationship of master and servant or that of employer and employee did not exist. The commission had no control over the taxpayer in any manner whatsoever in the performance of what he was called upon to do. Whenever they desired his services they called upon him for the same. They were in no position to require his presence or to require him to furnish them any information. While it appears that the taxpayer rendered services to the commission at such times as they called upon him, at a stipulated price per hour, it is not shown that this compensation was not subject to change for each occasion when he was called upon or that he owed any obligation to the commission to furnish any information in any matter unless on the particular occasion he desired to do so. Each occasion, therefore, is a specific undertaking. He was an independent agent. He was called upon on occasions to furnish the commission with information desired by them in performing their public duties. He could not be considered an employee of the state any more than a person who furnished coal to a public building at an agreed price per ton or a manufacturer or merchant who furnished supplies to public institutions.

With reference to the services rendered as commissioner for the Z grade crossings, it is equally clear that the taxpayer was not an employee. It could not be said in any sense that the relationship of master and servant existed between the taxpayer and the state of Y or a political subdivision thereof. He was appointed to act as one of three commissioners whose duties, as prescribed by statute, required them, after a hearing of the interested parties, to make a report to the court. No one had the power to direct the manner of the performance of their duties or to control their action. The court could confirm or reject their report, but had no power to direct them in the performance of their duty in such a manner as would constitute them employees within the definition of that term by the United States supreme court in the case of *Vane v. Newcombe,* supra, nor were the services rendered of a continuous nature. On the other hand they were specific and limited in character, and were in a particular transaction.

Nor in rendering services to the town of R or the city of S was the taxpayer an employee thereof. He was not in the regular and continuous service of such town or city, nor did the relationship of master and servant in any degree exist. In rendering such services he was an independent agent, and rendered specific services for an agreed consideration.

In view of the foregoing, it is held that the compensation received by A for services rendered to the state of Y and political subdivisions thereof as set forth herein is not exempt from the income tax.

In view of the foregoing opinion in which the committee concurs, it is recommended in the appeal of A that the action of the income-tax unit in holding that certain income received for services rendered by him to a state and political subdivision thereof constitutes taxable income under the revenue act of 1918 be sustained, and accordingly that the taxpayer's appeal be denied.

(T. D. 3242—November 9, 1921)

Income tax—Public health service—Military and naval forces of the United States—Opinion of Attorney General.

The personnel of the Public Health Service is not a part of the military forces of the United States within the meaning of the term "military and naval forces of the United States" contained in section 1 of the revenue act of 1918. The members thereof are not entitled to the exemption granted to such forces in section 213 (b) (8) of such act.

There is given * * * an opinion rendered by the attorney general, under date of October 29, 1921, dealing with the right of the personnel of the public health service to the exemption granted to the members of the military and naval forces of the United States in section 213 (b) (8) of the revenue act of 1918.

(T. D. 3243—November 14, 1921)

Income tax.

Extension of time for filing amended returns required by T. D. 3220, approved August 26, 1921, in cases in which appreciated or inflated values have been used in determining invested capital.

Under the provisions of T. D. 3220, approved August 26, 1921, all taxpayers who, in the preparation of their income and profits tax returns for 1917 and subsequent years, have used appreciated or inflated values in determining the amount of their invested capital are required to file amended returns within 90 days from the date of that decision and make payment of the additional tax shown to be due.

In view of the fact that many taxpayers are unable to complete their returns by November 24, 1921, the last date under which amended returns may be filed, as provided by T. D. 3220, an extension of time up to and including January 15, 1922, is hereby granted within which to file such amended returns and make payment of the additional tax due.

(T. D. 3245—November 14, 1921)

War profits and excess-profits taxes—Limitation.

Articles 732 and 733, Regulations No. 45 (1920 edition), amended.

Articles 732 and 733, regulations No. 45 (1920 edition), are hereby amended to read as follows:

ART. 732. *Limitation when return for fractional part of year.*—When a return is rendered for a fractional part of a year, the limitation shall be computed in the same manner as if the period covered by the return were a full taxable year.

ART. 733. *Illustration of computation of limitation of tax.*—If in the illustration used in article 720 the invested capital had been $100,000 and the net income $60,000, the tax computed under section 301 (a) of the statute would be $56,200. Section 302 provides, however, that the tax under section 301 (a) shall not be more than 30 per cent. of the net income in excess of $3,000 and not in excess of $20,000 plus 80 per cent. of the net income in excess of $20,000. The tax at the 30 per cent. rate will be $5,100 (art. 731) and the balance of the tax will be 80 per cent. of $60,000 (the net income in excess of $20,000), or $48,000. The total tax will therefore be $5,100 plus $48,000, or $53,100. The tax under section 301 (a), amounting to $56,200, will accordingly be reduced to $53,100.

(T. D. 3247—November 7, 1921)

Income tax—Gross income—Inclusions

Article 52 of Regulations No. 45 (1920 edition) amended.

Article 52 of regulations No. 45 (1920 edition) is hereby amended to read as follows:

ART. 52. *When included in gross income.*—Gains, profits and income are to be included in the gross income for the taxable year in which they are received by the taxpayer, unless they are included when they accrue to him in accordance with the approved method of accounting followed by him. See articles 21-24. Lands which are received as compensation for services in one year, the title to which is disputed and in a later year adjudged to be valid, constitute income to the grantee in the former year. On the other hand, a person may sue in one year on a pecuniary claim or for property, but money or property recovered on a judgment therefor rendered in a later year would be income in that year, assuming that it would have been income in the earlier year if then received. This is true of a recovery for patent infringement. Bad debts or accounts charged off subsequent to February 28, 1913, because of the fact that they are determined to be worthless, which are subsequently recovered, whether or not by suit, constitute income for the year in which recovered. For the rule to be followed in the case of bad debts charged off as worthless prior to March 1, 1913, and recovered subsequent to that date, see article 87 as amended by T. D. 3206, approved July 28, 1921. See also articles 111 and 151. In view of the unusual conditions prevailing at the close of the year 1918 it is recognized that many items of gross income, such as claims for compensation under canceled contracts, together with claims against contracting departments of the government for amortization and other matters, while properly constituting gross income for the taxable year 1918, were undecided and not sufficiently definite in amount to be reported in the original return for that year. In every such case the taxpayer should attach to his return a full statement of such pending claims and other matters, and when the correct amount of such items is ascertained an amended return for the taxable year 1918 should be filed.

(T. D. 3251—November 25, 1921)

Abatement of assessments as erroneous or illegal.

The validity of an assessment depends upon the law and actual facts existing. Therefore, an assessment made upon an erroneous theory or by mistake may not be remitted or abated because so made, if, at the time its validity is passed upon, the commissioner is in possession of evidence which shows an equivalent amount of tax is properly due in connection with the income, transaction, or matter upon which the assessment is predicated.

(T. D. 3252—November 25, 1921)

Income taxes—Revenue act of 1918—Decision of court.

1. SURTAX OF 72 PER CENT.—CONFISCATION WITHIN MEANING OF FIFTH AMENDMENT TO CONSTITUTION.

A graduated income tax which applies at a rate of 72 per cent. on a portion of a taxpayer's net income and at an average rate of 50 per cent. on his entire net income is not confiscatory within the meaning of the fifth amendment of the constitution.

2. PROFIT ON SALE OF STOCK, WHICH INCLUDES IN PART STOCK RECEIVED AS STOCK DIVIDEND.

Where a taxpayer received a 50 per cent. stock dividend upon shares of stock, part of which were purchased prior to March 1, 1913, and part subsequent thereto, and in 1918 sold the original certificates held on March 1, 1913, part of the stock purchased after March 1, 1913, and part of the stock received as the 50 per cent. stock dividend, the basis for computing the profit from such sale shall be as follows: For each certificate held on March 1, 1913, two-thirds of its value on that date; for each certificate acquired thereafter, two-thirds of its purchase price; and upon each certificate for stock dividend shares if identified as issued against a specified earlier certificate, one-third of the value on March 1, 1913, of the stock upon which the dividend was declared or one-third of the purchase price of the stock upon which the dividend was declared, as the case may be. If the stock received as a dividend can not be identified as having been declared upon any specific lot of the old stock, the sales of the dividend stock should be applied against the dividend stock chargeable to the first purchase remaining unsold when the stock dividend was declared. (See T. D. 3238.)

The appended decision of the United States district court for the southern district of New York, in the case of *Towne v. McElligott*, acting collector, is published for the information of internal revenue officers and others concerned.

UNITED STATES DISTRICT COURT, SOUTHERN DISTRICT OF NEW YORK

Henry R. Towne v. Richard J. McElligott, acting collector of United States internal revenue for the third district of the State of New York.

[August 5, 1921]

This case arises upon demurrer to a complaint by a taxpayer for money paid on income taxes. It raises two questions: First, whether the profits realized upon the sale of the plaintiff's shares of stock were correctly computed; second, whether a surtax of 72 per cent. on such profits was confiscatory. The first question depends upon these facts: The plaintiff owned shares in a corporation before March 1, 1913, and bought other shares thereafter. Later he received a stock dividend of 50 per cent. upon all his shares. In 1918 he sold some of his shares, including those certificates which he had held on March 1, 1913, those which he had bought later, and some of those which he had received as a stock dividend. The tax was collected on the following basis: The plaintiff was charged with the gross sale price and credited on each share sold with the average cost of all the shares. This average for each share was computed by dividing the gross cost of all such shares by the number of the shares including the shares declared as a stock dividend. The plaintiff argues that he should be credited with the actual cost of each certificate, computing the cost of the shares declared as a stock dividend at nothing. Thus the difference between the parties is whether in estimating the taxpayer's credit on each share sold, the stock dividend shares should be brought into hotchpot with the shares on which the stock dividend was declared.

LEARNED HAND, district judge: I shall take up the second point first, since if it were sound it would dispose of the whole case. In brief it comes to this, that a tax of 72 per cent. on the last increment of the plaintiff's income, and a tax of 50 per cent. upon his whole income, is confiscatory, and if so, void under the fifth amendment. The term "confiscatory," when so used, is clearly one of degree because literally all taxes are pro tanto confiscatory. Except as it imports some inequality of burden, not here suggested, it can mean nothing but that there is a measure to the amount which the government may seize in taxes for its own purposes. The plaintiff relies on certain language in *Brushaber v. Union Pac. Ry.* (240 U. S., 1, 24, 25) which, broken from its context, he thinks helps his contention. The meaning of that language is only that there may be inequalities in the rates of levy great enough to become a confiscation of the income which suffered the highest rates. The chief justice identified possible confiscation with a tax "so wanting in bases for classification as to produce such a gross and patent inequality as to inevitably lead to the same conclusion," i. e., the conclusion that the property was confiscated. I do not read this language as giving any color for arguing that when the inequalities are lawful the rates may be confiscatory as a whole, nor is there any such suggestion in the books that I have seen.

In fact our war taxes are not out of relation to the sums levied by other civilized nations faced with the same exigencies as the great war imposed upon us. In critical periods of a nation's life the power to tax may be necessary to preserve it, and perhaps there is no limit beyond which it may not subject the property within its reach to contributions. I need not go so far as that in this case; it is enough that the powers of congress are to be interpreted, not by dialectical ingenuity but by the current practices of nations in the exercise of similar powers. It is true that these powers are limited and that those limits must be observed, however little they circumscribe the analogous powers of other legislatures. Yet when the question is of the interpretation of those broad counsels of moderation contained in the fifth amendment, we must interpret the limitations themselves with an eye to the practices which have become tolerated elsewhere among civilized nations. Were it not so, we should be limited forever to the political usages of 1789, and those amendments which were intended to protect the individual against extravagant or invidious discrimination would become a strait-jacket upon the nation's freedom.

The second point is raised by *Eisner v. Macomber* (252 U. S., 189) and must be ruled by its implications. Under the doctrine of that case a stock dividend is not regarded as new property at all. The old certificate represented precisely the same property as the old and new do thereafter. The old shares have proliferated, as it were, and although the right they represented has now suffered a cellular division into smaller units of greater number, that is all that has happened. In view of this it seems to me difficult to avoid regarding the old and new shares together as anything more than the evidence of a right which has persisted unchanged through the declaration of the dividend. It might have been possible to look at the new shares as declared from the surplus and the surplus as not included in the old shares (at least not in the same sense as the new shares comprise it), but all such notions were expressly repudiated in the prevailing opinion. If so, each of the new shares, whether contained in the old or the new certificates, represents a part of the original property purchased, and in selling the first certificate the stockholder has not sold the whole of what he originally bought and should not be credited with the whole purchase price. Judge Rose, in *Safe Deposit, etc., Co. v. Miles* (273 Fed., 822), has adopted the same theory of computing an income tax in a stronger case. There the plaintiff sold some "rights" declared upon his stock, and Judge Rose computed his profit in substantially the same way as I suggest here.

The plaintiff answers this argument by saying that if so all shares at any time held by a stockholder must be brought into hotchpot and averaged. I scarcely think that consistency requires me to go so far. The law may and in fact does recognize an identity in every share which can indeed be traced upon the books of the company, at least until certificates are consolidated, and later subdivided. The purchase of a number of shares can be earmarked by the certificate and it is an enormous convenience to keep the purchase separate. Yet it is possible and consistent when new shares are declared to attribute them ratably in subdivision of those already issued. They are not so entered on the books, it is true, but the books are not kept in accordance with the underlying doctrine of *Eisner v. Macomber,* supra, in any event. At least the earlier certificates need not lose their separate identity because new shares are filiated to them in proper proportion.

An illustration will make clear what I mean. Suppose a man has certificate A for 100 shares bought at $100, certificate B for 100 bought at $150, and certificate C for 100 bought for $200. Suppose further that a stock dividend of 50 per cent. is declared and he gets one certificate D for 150 shares without paying anything. If he sells certificate A, he would be deemed to sell not the whole of his first purchase but only two-thirds of it and he could credit himself with only $6,666. If he sold certificate B, he would credit himself with $10,000, and if certificate C, with $13,333. If he sold certificate D, he could credit himself with $15,000, made up of $3,333 from his first purchase, $5,000 from his second, and $6,666 from his third. If, on the other hand, he sold only a part of certificate D, some arbitrary rule of apportionment must be adopted allocating the shares sold among his purchases. The most natural analogy is with payment upon an open account where the law has always allocated the earlier payments to the earlier debts in the absence of a contrary intention. Accordingly, if all the new shares were not sold at once, I think the first sales should be attributed to the first purchases still remaining unsold when the stock dividend was declared. I do not see that this method will result in confusion in its application, and it carries into effect the underlying theory of *Eisner v. Macomber,* supra.

The tax at bar was not computed quite in this way because all the purchases before the declaration of the stock dividend were brought into hotchpot. This I think was inconsistent with the theory of the identity of the shares involved in each purchase. It must, therefore, be recalculated, which the parties have kindly consented to do if they are told the rule. The credits will be computed as follows: Upon each certificate held on March 1, 1913, two-thirds its value on that day, i. e., $230; upon each certificate bought at $100, $66⅔; upon each certificate for stock dividend shares if issued against any specified earlier certificate the same credit per share as the shares of that certificate. If the certificate of new shares is not so earmarked, or if but one certificate was issued for the new shares, then credit will be allowed of two-thirds the value of the shares on March 1, 1913, until half the number of shares have been sold which the plaintiff held on March 1, 1913, and retained the stock dividend.

The formal disposition of the demurrer will depend upon this calculation. If the tax is less than that collected, the demurrer will be overruled and the plaintiff will take judgment for the difference; if it is greater or the same, the demurrer will be sustained and the complaint dismissed with costs.

Idaho Association of Certified Public Accountants

At the annual meeting of the Idaho Association of Certified Public Accountants held December 3rd and 4th, the following officers were elected: Norman H. Young, president; Charles E. Folsom, vice-president; J. W. Robinson, secretary-treasurer; directors, Clarence Van Deusen, James Munro, Edwin A. Wilson and John Ewald.

Reports for the past year were read and minor amendments to the by-laws were made. A resolution was adopted, to be forwarded to the Idaho senators and representatives, asking their favorable consideration of senate bill No. 2531, the purpose of which is to establish a board of examiners for the District of Columbia.

Students' Department

EDITED BY H. A. FINNEY

(NOTE—The fact that these solutions appear in THE JOURNAL OF ACCOUNTANCY should not lead the reader to assume that they are the official solutions of the American Institute of Accountants. They merely represent the personal opinion of the editor of the *Students' Department.*)

AMERICAN INSTITUTE OF ACCOUNTANTS
EXAMINATION IN ACCOUNTING THEORY AND PRACTICE

PART I

NOVEMBER 16, 1921, 1 P.M. to 6 P.M.

Answer any two of the first three problems:

1. At December 31, 1919, after closing the books, a balance-sheet of the A Company was submitted to a meeting of the board of directors. The statement showed an authorized capitalization of $100,000.00, divided into 1,000 shares, of which 800 had been issued at par value, and a surplus account of $23,000.00. The directors declared a 7 per cent. dividend, payable February 1st to stockholders of record January 15th.

Immediately following the meeting on December 31st, the B Company purchased for cash 90 per cent. of the outstanding stock of the A Company at 130, and the stock was registered in the name of the B Company on the A Company's books.

The dividend was paid by Company A on February 1st.

On June 30, 1920, the A Company closed its books and found that it had made a profit of $12,000.00 for the half year.

On July 1, 1920, the directors of the A Company authorized the sale of the unissued stock at 120, to be subscribed and paid for by the stockholders at that date in amounts proportionate to their present holdings. All of the stock was accordingly issued and paid for at that date.

A dividend of 4 per cent. was declared on July 3, 1920, and paid on July 15th. The dividend was applicable to the entire stock issue.

The books of Company A were closed at December 31, 1920, and the profits for the half year were found to be $13,500.00.

The B Company took up its proportion of the subsidiary's earnings on June 30th and December 31st, respectively, before closing its own books. Dividends declared after the acquisition of the stock were treated as a reduction of the investment account.

(a) You are asked to prepare journal entries for these transactions as they would appear on the books of Company B.

Consolidated balance-sheets were prepared on:

December 31, 1919, immediately following the first stock purchase;
July 1, 1920, immediately following the second stock purchase;
December 31, 1920.

(b) State as to each consolidated balance-sheet:

(1) The amount of goodwill appearing therein, assuming that the books of Company A showed a goodwill account of $10,000.00 at each date and that there was no goodwill account on Company B's books.

(2) The minority interest.

(3) The consolidated surplus, assuming that Company B's books showed surplus of

$46,000.00 at December 31, 1919.
57,000.00 at July 1, 1920.
68,000.00 at December 31, 1920.

Solution. At December 31, 1919, when the B Company made the first purchase of stock, the A Company's books showed:

Capital stock outstanding		$80,000.00
Surplus:		
Balance before dividend	$23,000.00	
Less dividend (7% of $80,000)	5,600.00	17,400.00
Book value of stock		$97,400.00
Dividends payable		$ 5,600.00

The B Company purchased 90% of the outstanding stock:

Par of stock acquired (90% of $80,000)		$72,000.00
Book value (90% of $97,400)		87,660.00
Portion of dividend applicable to acquired stock:		
90% of $5,600		5,040.00
Purchase price of acquired stock:		
Total price ($72,000 × 130)	93,600.00	
Less dividend rights acquired	5,040.00	
Price paid for stock	$88,560.00	

December 31, 1919

Investment in stock of Company A	$88,560.00	
Dividends receivable—Company A	5,040.00	
Cash		$93,600.00

To record the purchase of 90% of the outstanding stock of Company A, together with right to 7% dividend declared today, payable February 1, 1920.

Price @ 130	$93,600.00
Less dividend receivable	5,040.00
Price of stock	$88,560.00
Book value of stock acquired	87,660.00
Goodwill in stock purchase	$ 900.00

February 1, 1920

Cash	$ 5,040.00	
Dividends receivable—Company A		$ 5,040.00

To record collection of dividend declared by Company A on December 31, 1919.

June 30, 1920

Investment in stock of Company A	$10,800.00	
Income from stock of Company A		$10,800.00

To take up our 90% of the earnings of subsidiary A for the half year ended today (90% of 12,000)

Income from stock of Company A		$10,800.00	
Surplus			$10,800.00
To transfer earnings to surplus.			
July 1, 1920			
Investment in stock of Company A		$21,600.00	
Cash			$21,600.00
To record the purchase of 90% of Company A's unissued stock at 120.			
Total unissued stock	$20,000.00		
Per cent. acquired	90%		
Par of stock acquired	$18,000.00		
Price per share	120.00		
Cost of stock	$21,600.00		
July 3, 1920			
Dividends receivable, Company A		$ 3,600.00	
Investment in stock of Company A			$ 3,600.00
To record declaration by Company A of 4% dividend:			
Total dividend	$ 4,000.00		
Our 90% thereof	3,600.00		
July 15, 1920			
Cash		$ 3,600.00	
Dividends receivable—Company A			$ 3,600.00
To record collection of dividend from Company A.			
December 31, 1920			
Investment in stock of Company A		$12,150.00	
Income from stock of Company A			$12,150.00
To take up our 90% of the $13,500 earnings of Company A for the last half year.			
Income from stock of Company A		$12,150.00	
Surplus			$12,150.00
To transfer earnings to surplus.			

FIGURES APPEARING IN CONSOLIDATED BALANCE-SHEETS

Goodwill: The method of determining the goodwill depends on whether the holding company carries the investment

(a) at original cost. In that case the goodwill involved in the stock purchase is determined by deducting the book value of the stock at the date of acquisition from the cost of the stock; or

(b) at cost plus proportion of earnings and minus proportion of dividends declared after acquisition. In this case the balance of the investment account at any date will represent

The book value of the stock at that date,
Plus any goodwill from stock purchase,
Or minus any negative goodwill, due to the fact that the price paid was less than book value at acquisition.

The B Company followed the second method of accounting for the investment. Hence the goodwill is computed by deducting the book value of the subsidiary holdings at the balance-sheet date from the balance of the investment account. A positive remainder is an addition to goodwill. A negative remainder is a deduction.

Goodwill at December 31, 1919:			
Goodwill on books of Company A			$10,000.00
Goodwill in stock purchase:			
Balance of investment account		$88,560.00	
Less book value of stock acquired:			
Par of stock outstanding	$80,000.00		
Surplus	17,400.00		
Total	$97,400.000		
90% thereof		87,660.00	900.00
Total goodwill on consolidated balance-sheet			$10,900.00
Goodwill at July 1, 1920:			
Goodwill on books of Company A			$10,000.00
Goodwill in stock purchase:			
Balance of investment account:			
Cost of first purchase		$88,560.00	
Earnings to June 30, 1920		10,800.00	
Total		$99,360.00	
Cost of second purchase		21,600.00	
Balance of investment acc't at July 1, 1920		$120,960.00	
Less book value of stock held:			
Par of stock outstanding	$100,000.00		
Surplus from sale of $20,000 at 120	4,000.00		
Surplus at December 31, 1919	17,400.00		
Earnings to June 30, 1920	12,000.00		
Total book value at July 1, 1920	$133,400.00		
90% thereof		120,060.00	900.00
Total goodwill on consolidated balance-sheet			$10,900.00
Goodwill at December 31, 1920:			
Goodwill on books of Company A			$10,000.00
Goodwill in stock purchase:			
Balance of investment account at Dec. 31:			
Balance at July 1st (as above)		$120,960.00	
Less dividends—July 3, 1920		3,600.00	

Balance		$117,360.00	
Add profits to December 31st		12,150.00	
Balance at December 31, 1920		$129,510.00	
Less book value of stock:			
Book value of total stock (July 1)	$133,400.00		
Less dividends, July 3rd	4,000.00		
Balance	$129,400.00		
Add profits to December 31st..	13,500.00		
Total book value at Dec. 31st..	$142,900.00		
90% thereof		128,610.00	900.00
Total goodwill on consolidated balance-sheet			$10,900.00

The goodwill might also be determined thus: the first purchase of stock involved a goodwill item of $900.00; the second purchase involved no goodwill since the payment for the stock increased the subsidiary's book value an amount exactly equal to the price paid. Of course, if the minority interest had not taken its proportion of the unissued stock, the condition would be different, for in that case a portion of the premium paid in by the holding company would go to enhance the value of the minority interest. But since the new stock is issued in amounts proportionate to the former holdings, and since all purchasers pay the same price, the entire amount paid in by the holding company goes to enhance the book value of its holdings.

Minority interest at December 31, 1919:

Capital stock of Company A	$80,000.00
Surplus	17,400.00
Total	$97,400.00
Minority interest, 10%	$ 9,740.00

In addition to their interest in the stock and surplus, the minority stockholders are entitled to 10% of the declared dividends, or $560.00. This item, however, would appear on the consolidated balance-sheet as dividends payable and not as minority interest.

Minority interest at July 1, 1920 (assuming that the balance-sheet is drawn up after the sale of stock at 120):

Capital stock of Company A		$100,000.00
Surplus:		
At December 31, 1919	$17,400.00	
Add profits to June 30, 1920	$12,000.00	29,400.00

Capital surplus from sale of stock		4,000.00
Total		$133,400.00
Minority interest, 10%		$13,340.00

Minority interest at December 31, 1920:

Capital stock of Company A		$100,000.00
Surplus:		
At July 1, 1920 (as above)	$29,400.00	
Less dividends, July 3rd	4,000.00	
Balance	$25,400.00	
Add profits to December 31, 1920	13,500.00	38,900.00
Capital surplus		4,000.00
Total		$142,900.00
Minority interest, 10%		$14,290.00

Consolidated surplus:

At December 31, 1919	$46,000.00
At July 1, 1920	57,000.00
At December 31, 1920	68,000.00

These are the balances of the surplus account on Company B's books. No portion of the subsidiary's operating surplus is added to these amounts because the holding company has already taken up its proportion of the subsidiary's earnings. The proportion of the $4,000.00 capital surplus is not added because the payment of a premium by Company B constitutes merely a transfer of funds from B to A and not an earning of Company B.

2. The M Company of New York started in business on January 1, 1920, manufacturing a patented article. It entered into a contract with the S Company of Chicago. This contract contained the following provisions:

(a) The S Company shall have the exclusive right to sell the M Company's product.

(b) All goods manufactured by the M Company during the month shall be shipped to the S Company on or before the last day of the month.

(c) All goods shall be shipped on consignment and be billed to the S Company at 120 per cent. of the estimated cost of manufacture.

(d) Cost of manufacture shall include all material, labor and manufacturing expenses, to which shall be added 6 per cent. interest on the M Company's investment in plant assets used in manufacturing.

(e) The S Company shall remit as an advance 60 per cent. of the billed price of the goods on receipt thereof. The remainder of the billed price shall be remitted as soon as the goods are sold. The S Company may sell at any price it chooses, above the billed price, the excess being the profit of the S Company.

(f) Records shall be kept on the M Company's books as follows:

Consignments shall be charged to "S Company, consignee," and credited to "consignments outward" at billed price (i. e., estimated cost including interest, plus 20 per cent.).

Advances shall be credited to "S Company, advances."
Sales reported by the S Company shall be recorded as follows:
Debit "S Company" and credit "sales" at billed prices;
Transfer from "S Company, advances" to "S Company" the advances applicable to goods sold;
Credit "S Company" with remittances in final settlement.

(g) At the end of the year, the M Company shall ascertain the true manufacturing cost, to which has been added 6 per cent. interest on plant assets, as well as 20 per cent. of the total so obtained, to determine the adjusted bill prices, and shall make the following adjustments:

Raise or lower the balances of the "S Company, consignee" and the "consignments outward" accounts to the adjusted billed price of goods unsold.

Adjust the "advances" account so that its balance shall be 60 per cent. of the adjusted billed price of goods received by the S Company and still unsold, offsetting entry to be made in the "S Company" account.

Adjust the sales account and the "S Company" account for any discrepancy between the estimated and adjusted billed prices of goods sold.

Any balance in the "S Company" account, after making these adjustments, shall be due immediately by or to the M Company.

At December 31, 1920, the M Company's trial balance included the following balances:

Manufacturing account (after closing thereto all manufacturing accounts as well as interest on plant assets)	$180,000	
Interest on plant assets		$ 3,000
S Company, consignee	240,000	
Consignments outward (total for the year)		240,000
S Company advances (advances received less those applied in settlement for sales)		18,000
S Company (account balances and is closed)		
Sales		170,000

The M Company has shipped all goods manufactured.

The S Company has paid all advances on goods received and made settlement at estimated billed prices for all goods sold.

Make the adjusting entries required in (g) above.

State the gross profit of the M Company on sales made by the S Company.

Determine the inventory of unsold goods at true manufacturing cost.

Solution. In solving this problem it is advisable to build up the "S Company advances" account (which shows only a balance of $18,000) and the "S Company" account (which is closed). This can be done by making the entries called for in paragraph (f) of the problem.

The charge to "S Company, consignee" and the credit to "consignments outward" was $240,000.

The next entry is: debit cash and credit "S Company, advances" with 60% of the billed price of goods received by the S Company. This will not necessarily be 60% of the $240,000 shipments, because there may be goods in transit.

The balance of the advances account is	$ 18,000.00
There has been transferred from "advances" to "S Company" account in settlement for goods sold 60% of $170,000 sales, or	102,000.00
Hence the total advances paid by the S Co. were	$120,000.00

Cash	$120,000.00	
S Company, advances		$120,000.00
To record total advances.		
The entries for sales were:		
S Company	170,000.00	
Sales		170,000.00
To record total sales of consigned goods.		
S Company, advances	102,000.00	
S Company		102,000.00
To transfer the advances applicable to goods sold.		
Cash	68,000.00	
S Company		68,000.00
Final settlement for goods sold.		

We can now ascertain the billed price of goods unsold:

Total consignments—at billed price		240,000.00
Less consignments received by S Company: $120,000.00 ÷ 60%		200,000.00
Goods in transit		$ 40,000.00
Goods received by S Company (as above)	200,000.00	
Less goods sold	170,000.00	
Goods in possession of S Company		30,000.00
Total inventory at estimated billed prices		$ 70,000.00

The next step is to make the adjustments called for in paragraph (g).

True cost of manufacture, including interest	$180,000.00
Add 20% thereof	36,000.00
Adjusted billed price	$216,000.00

Then $216,000.00 ÷ $240,000.00 = 90% or rate of adjusted billed price to estimated billed price.

First adjusting entry:

Consignments outward	$177,000.00	
S Company consignee		$177,000.00

To lower balances of accounts to adjusted billed price of goods unsold:

Balance of accounts	$240,000.00
Less adjusted billed price of goods unsold: (90% of $70,000.00)	63,000.00
Adjustment	$177,000.00

Second adjusting entry: The advances account is to be adjusted so that its balance will be 60% of the adjusted billed price of goods received by the S Company and unsold.

S Company advances	$ 1,800.00	
S Company		$ 1,800.00

	Total	*60%*
Estimated billed price of inventory	$30,000	$18,000
Adjusted billed price of inventory	27,000	16,200
Excess advances on goods unsold		$ 1,800

Third adjusting entry: The sales account and the S Company account must also be adjusted because of the over-estimate in the billed price of the goods sold for which payment has been made.

Sales		$ 17,000.00	
S Company			$ 17,000.00
Billed price of goods sold	$170,000.00		
Adjusted price: 90% thereof ...	153,000.00		
Adjustment for over payment ..	17,000.00		

The amount now due to the S Company is computed as follows (though not asked for by the problem):

For excess advances on goods unsold	$ 1,800.00
For excess settlements on sales	17,000.00
Total	$ 18,800.00

In order to determine the gross profit on sales, it is necessary to determine the true cost of the goods sold.

The estimated billed price of goods manufactured was	$240,000.00
The estimated billed price of goods unsold was	70,000.00
The estimated billed price of goods sold was..	$170,000.00

Then 17/24 of $180,000.00 = $127,500.00 cost, including interest, of goods sold

and 7/24 of $180,000.00 = $52,500 cost, including interest, of goods unsold.

Sales, at adjusted price	$153,000.00
Less cost of goods sold, including interest	127,500.00
Gross profit on sales, not including interest realized by sales	$ 25,500.00
Add interest realized by sales: 17/24 of $3,000.00	2,125.00
Total gross profit on sales	$ 27,625.00

The inventory of unsold goods at cost including interest was	$ 52,500.00
Deduct interest included in cost: 7/24 of $3,000.00	875.00
True manufacturing cost of inventory	$ 51,625.00

ACTUARIAL (*Optional*)

3. The federal estate tax imposes "a tax equal to the sum of the following percentages of the value of the net estate:

1 per centum of the amount of the net estate not in excess of $50,000;

2 per centum of the amount by which the net estate exceeds $50,000 and does not exceed $150,000;

3 per centum of the amount by which the net estate exceeds $150,000 and does not exceed $250,000.

The rates are further graduated up to 25 per cent.

The net estate is computed by determining the gross estate and making deductions for liabilities, funeral and administration expenses and an exemption for $50,000.

The regulations provide that when the decedent was entitled to receive an annuity of a definite amount during a specified number of years and the right constitutes an asset of his estate, the present worth of the annuity at the time of the decedent's death must be computed on a four per cent. basis and be included in the gross estate.

The regulations further provide that when the decedent possessed a remainder interest in property subject to an estate for a term of years, and such interest constituted an asset of his estate, the present worth of the remainder interest at the time of his death must be computed on a four per cent. basis and be included in the gross estate.

George Smith died on January 1, 1921. His estate consisted of:

Sundry real and personal property valued at $215,000.00;

An annuity of $10,000 per annum, payable at December 31st for a period of twenty years, the tenth payment of which was received on December 31, 1920;

A remainder interest in a fund of $40,000, subject to an estate for fifteen years. This estate will terminate on December 31, 1930.

Liabilities and expenses totaled $35,000.

Present value at 4 per cent. of one dollar due 10 years hence = .675564.

Compute the estate tax.

Solution.

Gross estate:

Sundry real and personal property	$215,000.00
Present worth of annuity of ten payments of $10,000 each, the first of which is due one year hence:	
Present value of $1 at 4% due in 10 years = .675564	
Compound discount = .324436	
Present value of annuity of 1 = .324436 ÷ .04 = 8.1109	
Present value of annuity of 10,000 = 8.1109 × 10,000 =	81,109.00
Present worth of remainder interest in fund of $40,000, subject to an estate for 10 years:	
Present value of $1 due ten years hence at 4% = .675564	
Present value of $40,000 = .675564 × 40,000 =	27,022.56
Total	$323,131.56

Deduct:		
Liabilities and expenses	$35,000.00	
Exemption	50,000.00	85,000.00
Net estate		$238,131.56

TAX

	On $ 50,000.00	at 1%	$ 500.00
	" 100,000.00	" 2%	2,000.00
	" 88,131.56	" 3%	2,643.95
Total	$238,131.56		$5,143.95

Answer all the following questions:

4. Recently it has been urged that if the replacement cost of fixed assets is greatly in excess of their cost, depreciation should be computed on replacement values, so that the reserve for depreciation will be equal to the replacement value when the time arrives for abandoning the old property and acquiring new. It is contended that if this procedure is followed the company will have sufficient cash to make replacements without impairing the capital. State your opinion in regard to this matter.

Answer. While it is desirable for the corporation to take into consideration the fact that replacement costs are in excess of actual costs, the recommended procedure does not seem to be good accounting, nor will it necessarily result in the company having "sufficient cash to make replacements without impairing the capital."

It is not good accounting because the credit to the depreciation reserve is offset by a charge to operations. This charge to operations should be based on the cost of the assets now in use. The probable greater cost of new assets will be absorbed by charges to operations in future periods when more expensive assets are in use. In other words, the proposed method will result in an overstatement of manufacturing costs and a consequent inflation of inventories and understatement of profits.

The procedure will not necessarily provide "sufficient cash to make replacements without impairing the capital." In the first place, setting up a reserve based on cost during the first part of the life of an asset, and based on replacement value during the last part of the life of the asset, will not create a reserve equal to the replacement cost at the termination of the life of the asset.

In the second place, the procedure will not provide cash because a reserve is an entirely different thing from a fund. Setting up a reserve does not set aside cash. While it will decrease the amount of profits available for dividends and thus tend to reduce the amount of cash distributed among the stockholders, it will not prevent the use for other purposes of the cash retained from dividends.

In the third place, and as to the impairment of capital, a reserve based on cost will be sufficient to avoid this result, because such a reserve will take care of the present cost of depreciation and prevent the payment of dividends in excess of profits. If such a reserve is set up the capital will not be impaired by the subsequent purchase of more expensive assets because such a purchase would merely be an exchange of assets and not a loss. If the intention is to avoid the impairment of working capital, this would be better accomplished by limiting dividends and creating a fund.

The proposal that dividends be limited may suggest the advisability of an increase in the reserve in order to reduce the profits available for dividends. But instead of increasing the depreciation reserve with the erroneous results discussed above, it would be better to provide a depreciation reserve on a basis of cost, and set up another reserve or appropriated surplus account which in time will equal the difference between original cost and replacement cost.

5. A corporation has an issue of $100,000 of cumulative preferred stock bearing 6 per cent. dividends. No dividends have been paid for two years. How would you disclose the facts in a balance-sheet dated December 31, 1920, if

(a) A dividend of $12,000 on the preferred stock was declared on December 27th, payable January 15th, and there is a remaining surplus of $5,000?

(b) No dividends have been declared and there is a surplus of $17,000?

(c) No dividends have been declared and there is a surplus of $4,000?

(d) No dividends have been declared and there is a deficit of $7,000?

Answer. (a) The declared dividends should be shown as a current liability and the surplus of $5,000 should be shown without comment.

(b) The surplus should be shown as follows:

Surplus:

Subject to cumulative preferred dividends in arrears	$12,000	
Free	5,000	$17,000

(c) Two methods are available:

Surplus (subject to $12,000 preferred dividends in arrears) 4,000

Or show the surplus of $4,000 and add a footnote to the balance-sheet calling attention to the dividends in arrears.

(d) Show the deficit as a deduction from the capital stock, and call attention to the cumulative dividends by means of a footnote.

6. At December 31, 1920, a company priced its inventory at the market value at that date, which was considerably less than cost. At a meeting of the board of directors, held prior to closing the books for 1920, the probability of a further market decline in 1921 was discussed, and it was decided that some provision should be made for this contingency. State whether you think such a provision is necessary or not; how you would make such provision; and what the effect would be on the profits for 1920.

Answer. The provision for possible future inventory losses is not necessary in determining the profits for 1920 because the loss is not only uncertain but also, if it does occur, it has no relation to the past year. If the directors propose to pay dividends equal to the total surplus, it might be advisable to reduce the surplus available for dividends by making a provision for the future loss, because if the company begins 1921 with no surplus, a loss in 1921 will impair its capital.

If provision is to be made, it should be done by creating a reserve by a charge to surplus. At December 31, 1920, this reserve will be shown on the balance-sheet as appropriated surplus and as a part of the net worth.

There should be no effect on the profits for 1920, as a decline in values in 1921 should be absorbed as a loss of 1921. It is for this reason that the reserve is provided out of surplus, after ascertaining the profits for 1920.

Goodwill in Consolidated Balance-sheet

Editor, Students' Department:

Sir: I would greatly appreciate your opinion on the following matter.

In my study of consolidated balance-sheets I have found that when stock of subsidiary companies is purchased at a price in excess of the combined value of the capital stock and surplus of the subsidiary, such excess is generally debited to a goodwill account on the consolidated balance-sheet. Suppose the subsidiary instead of having a surplus, had a deficit, would goodwill be set up just the same? And, if the price paid is less than the value received, is the excess value credited to surplus or to the purchasing company's goodwill account? Suppose a consolidated balance-sheet set up directly after the purchase of stock of a subsidiary company shows a goodwill account of $100,000. Is this goodwill account set up at this figure on succeeding balance-sheets, or is each one made up independently of the preceding one? Certainly after a company has owned a subsidiary for several years, and each succeeding year shows a larger deficit in the subsidiary's accounts from operations, it would not seem logical to increase the goodwill account each year on the consolidated balance-sheet.

Yours truly,

Quincy, Massachusetts. C. L.

It is customary to include in the goodwill account on the consolidated balance-sheet any excess of the purchase price of the subsidiary stock over the book value of the stock acquired at the date of acquisition. Therefore, if the subsidiary has a surplus at the date of acquisition, the addition to goodwill is determined as follows:

Purchase price		$100,000.00
Less book value at acquisition:		
90% of 100,000 capital stock	$90,000.00	
90% of 10,000 surplus	9,000.00	99,000.00
Addition to goodwill		$ 1,000.00

If the subsidiary has a deficit at the date of acquisition, the addition to goodwill is computed as follows:

Purchase price		$91,000.00
Less book value at acquisition:		
90% of 100,000 capital stock	$90,000.00	
90% of 3,000 deficit	2,700.00	87,300.00
Addition to goodwill		$ 3,700.00

If the price paid is less than book value, the customary method is to deduct the "negative goodwill" from any positive goodwill, wherever found. That is to say, the deduction is made from goodwill on the books of the holding company or of any of the subsidiaries or goodwill arising from the holding company's purchase of the stock of other subsidiaries at more than book value.

My opinion is that this is incorrect. If the holding company acquired the stock at less than book value, it would seem that one of three things was the cause.

(a) Some asset on the subsidiary's books was overstated. If there is a goodwill account on the books of this subsidiary, it would seem correct to offset the negative goodwill in the purchase from the positive goodwill in the subsidiary's account. If some other asset is overstated, the difference between book value and purchase price should be deducted from this asset as a reserve.

(b) The holding company made a fortunate purchase by acquiring stock worth more than was paid for it. If the holding company acquired the subsidiary stock by an issue of its own stock, the excess of book value would seem to be premium, to be credited to capital surplus. There is no essential difference if the holding company paid cash for the stock.

(c) The earnings of the subsidiary are so small that the investment is not worth the book value of the net assets of the subsidiary. Since the holding company's earnings may be correspondingly reduced, its goodwill may be reduced, in which case it might be logical to deduct the difference between book value and purchase price from the holding company's goodwill. But if this method is followed, it would be pertinent to ask why the holding company acquired stock which was expected to cause a reduction in its net earnings.

Since the goodwill is the excess of purchase price over book value at acquisition, and since subsequent earnings or losses of the subsidiary will not affect the book value at acquisition, it follows that the goodwill in subsequent consolidated balance-sheets will be the same as the goodwill in the balance-sheet at acquisition, unless other purchases or sales of subsidiary stock change it.

Bad Cheques

Editor, Students' Department:

Sir: Please submit the journal entries to cover the following transaction:

On July 1st we sold a bill of goods costing $80.00, for $100.00, receiving a cheque endorsed by the purchaser in the amount of $130.00, and we paid him the difference in cash. On July 10th the cheque came back marked "no funds." We were unable to collect anything from either the maker or endorser of the cheque.

Chicago, Illinois. G. F. M.

The cost and selling price of the goods are immaterial to the problem. The case is not essentially different from losses on bad debts. In such cases there is no attempt to take out of the trading accounts the profit which was originally supposed to have been made on the sale of goods. In fact, it would probably be wrong to attempt to take such profit out of the trading accounts. Two facts must be considered: a sale made at a profit, and a loss from inability to realize on an asset.

As bad debts are charged off to profit and loss, so should the bad cheque be charged off. The only entry necessary to record the transaction is a debit to expense or some other nominal account and a credit to cash of $130.00.

Inventory of Supplies

Editor, Students' Department:

Sir: Will you please favor me with an answer to the following:

A manufacturing corporation has adhered to a policy for more than twenty years of charging all factory supplies direct to expense accounts. No inventories of factory supplies were taken at the end of their fiscal periods. The value of the factory supplies on hand, therefore, did not appear on the books of the company.

It now wishes to change its method of accounting for factory supplies. On December 31st of this year it intends to take a physical inventory of the factory supplies and set up the inventory on the books, charging the expense accounts when the supplies are used. Should it credit surplus account or should it credit the 1921 expense accounts when the inventory account is set up?

Will the company have to pay a federal income tax on the increase of the surplus account or profit-and-loss account as a result of the change in method of accounting for factory supplies?

Cambridge, Massachusetts. R. H. A.

In order to obtain a correct statement of operations for 1921, profit and loss should be charged with the excess of the inventory of supplies at January 1, 1921, over the inventory at December 31, 1921. On the other hand, if the inventory at the end of the year is greater than at the beginning of the year, profit and loss should be credited with the difference since some of the purchases of supplies, charged to profit and loss, have been left unused in the inventory. Surplus should be credited with an amount in either case sufficient to balance the journal entry.

Since there is probably no information as to the inventory at the beginning of the year, and since there was probably little variation between the two inventories, it would be better to credit the entire amount of the inventory at the end of the year to surplus than to credit it to profit and loss.

The *Students' Department* does not answer questions relating to federal taxes.

Discounts and Price Fluctuations in Contract Costs

Editor, Students' Department:

Sir: Will you kindly answer the following questions?

The A Company manufactures gas appliances and fixtures and has agreed with the B Company to sell them their entire output for the year 1920 at cost, plus 10%. The trial balance of the A Company, before closing at December 31, 1920, included the following credit items:

Cash discounts on purchases	$1,200.00
Reserve for inventory adjustment set aside out of surplus	3,350.00

This reserve was set aside to take care of an anticipated reduction in inventory, due to a decline in market prices. Inventories, both at December 31, 1919, and December 31, 1920, were taken at market prices.

Should the B Company derive any benefit from these two items? In other words, is cash discount on purchases considered an item of cost, and since both inventories were taken at market prices, should the reserve set aside to take care of depreciation in market prices enter into the cost of production for the year 1920? My contention regarding the above items is as follows:

1. Since the A Company were in such financial condition that they could take advantage of all cash discounts, the B Company should derive no benefit therefrom; or, in other words, the cost of production of the A Company should not be reduced by this amount. On the other hand, had it been necessary for the A Company to borrow money with which to take advantage of cash discounts, the interest thereon would have been a proper charge to the cost of production, and likewise the advantage thus derived from discounting invoices would be a proper credit to the cost of production.

2. Since the amount $3,350.00 was set aside out of surplus, and is therefore a surplus reserve, and since both inventories, as above mentioned, were taken at market prices, and also since any loss in inventory during the year in question, due to a decline in market prices is chargeable to the cost of production for the year (assuming, of course, that the

inventory is not abnormally high), I see no reason why the amount set aside as a reserve should not be credited back to surplus, from whence it came, and not in any way affect the cost of production for the year.

Very truly,

T. A. D.

It is impossible for me to agree with your reasoning in (1). There would have to be a specific agreement between the two companies covering cash discounts. Without such an agreement the A Company would not be entitled to charge production with interest on money borrowed, nor would they be required to credit production with cash discounts taken. Incidentally, I think that your argument is not entirely logical. You say that when the A Company has sufficient money to take discounts the B Company is not to be permitted to derive any benefit therefrom. But if the A Company pays interest and takes discounts, the B Company should get the benefit of any excess of discount received over interest paid, or bear the burden of the excess of interest paid over discounts received. It seems to me that the same principles should govern a gross earning from discount, a net earning from the excess of discounts over interest, and a net loss from the excess of interest over discounts; and the method to be applied must depend on an agreement.

As to the inventory reserve, you are quite right. The inventories at the beginning and end of the period should be valued in accordance with the standard rule, but if the A Company sees fit to set up a reserve out of surplus for future losses from a further decline in the market during 1921, the costs of production during 1920 should not be affected by setting up the reserve, and it certainly should not be considered income for 1920 nor a reduction of the cost to manufacture during 1920. Neither should it have any effect on the cost of production in 1921. The reserve should be credited back to surplus, and production should be charged with material at the market value used in the inventory at the beginning of 1921.

Correspondent's Name Omitted

On page 467 of the December number of The Journal there appears a letter headed *Another Tax Problem.* Through some unfortunate oversight the name of the author, Otis J. Tall, was omitted.

Anonymous Communications

It seems necessary once more to call attention to the fact that anonymous letters cannot receive the attention of the editor of this department. All letters should contain the name and address of the writer, although initials or a pseudonym will be published instead of the name if the writer expresses such a desire.

M. W. Mattison and Leonard S. Davey announce the formation of a partnership under the firm name of Mattison & Davey with offices at 141 Broadway, New York.

Maurice Goldberg announces the removal of his office to the Gotham National Bank building, 1819 Broadway, New York.

American Institute of Accountants

REGIONAL MEETINGS

Des Moines

The third midwest regional meeting of the American Institute of Accountants was held at Des Moines, Iowa, on Friday and Saturday, November 11 and 12, 1921. P. L. Billings was elected chairman of the meeting.

The meeting was called to order at 10 A. M. on Friday and an address of welcome was delivered by H. H. Barton, mayor of the city. The address was followed by a brief business session.

The following papers were read and discussed:

Treatment of No-Par-Value Stock in an Audit and upon the Balance-sheet by Charles R. Whitworth of Illinois.

Professional Accounting Service by H. M. Temple of Minnesota.

Graphic Charts and their Application to Accountancy and Value in an Audited Statement by R. S. Fulton of the University of Iowa.

Engineering Service in Connection with Accounting Service by W. E. King of St. Paul.

Should Important Changes in the Surplus Account During the Year Appear on the Balance-sheet? by C. B. Tompkins of Iowa.

Visiting accountants were the guests of the Iowa accountants at luncheon.

An informal dinner was held at 6:30 P. M., at which Edward E. Gore of Illinois was toastmaster. The speakers were Carl H. Nau, president of the American Institute of Accountants; A. P. Richardson, secretary of the American Institute of Accountants; James B. Weaver of Iowa, Francis R. Roberts of Chicago and others.

On Saturday a paper entitled *Cost and Production Standards* was read by William B. Castenholz of Chicago and followed by discussion.

An informal "round table" followed the conclusion of the discussion and matters of interest in the profession were considered.

About 130 persons were in attendance.

Pittsburgh

The first regional meeting of the American Institute of Accountants for the region comprising Western Pennsylvania, Western New York, Ohio, West Virginia and Western Maryland was held at the William Penn Hotel, Pittsburgh, December 3, 1921.

The meeting was an unqualified success, the attendance, as indicated by the register, being 254.

The meeting was called to order at 10:45 A. M.

Ernest Crowther, president of the Accountants' Club of Pittsburgh, occupied the chair and gave the address of welcome.

The chair was authorized to appoint a committee, to report during the afternoon session, as to the time and place of the next regional meeting and the zone to be covered.

The committee appointed consisted of W. J. Wilson, Philadelphia, chairman; Charles C. Roberts, Cleveland, Ohio; G. R. Lamb of Cincinnati, Ohio; O. G. Richter and E. C. Gause of Pittsburgh.

In reply to questions Mr. Nau, president of the American Institute, stated that the Institute is in favor of the Capper bill for the District of Columbia. This bill, which provides for C. P. A. legislation, is modeled after the Institute requirements. He also stated that the Institute had engaged competent counsel to investigate the present situation in the District of Columbia.

The following papers were read and discussed:

Audit Reports by William H. Bell of New York.

Commercial Law and Its Relation to Accounting by Aubrey L. Ashby.

The report of the committee for the next regional meeting was next heard. The committee recommended that the present zone for the time being remain unchanged. The place for the next meeting had not been selected, the committee being of the opinion that invitations should be asked from various cities. The date fixed for the next meeting was May 6, 1922.

Charles C. Roberts of Cleveland thereupon extended an invitation to hold the next regional meeting for the district at Cleveland on May 6, 1922.

Mr. Roberts was appointed chairman of the advisory committee for the Cleveland meeting. The following were appointed to the advisory committee:

West Virginia: S. Charles Steele, Fairmont. New York: Louis W. Wilson, Rochester; Ralph W. Smith, Rochester. Ohio: George R. Lamb, Cincinnati. Pennsylvania: W. J. Wilson, Philadelphia; E. C. Gause, Pittsburgh; O. G. Richter, Pittsburgh; James O. MacLean, Pittsburgh; Horace P. Griffith, Philadelphia.

The following papers were presented: *Production Costs as Affected by Mechanical Changes in Production Methods* by Charles Reitell; *State Taxation* by P. A. Kennedy.

Dinner was served at the William Penn Hotel at 6:30 P. M. L. P. Collins acted as toastmaster and speeches were delivered by Carl H. Nau, A. P. Richardson, M. Hoke Gottschall, T. Edward Ross, A. B. Wright and Daniel C. Roper.

Hartford

The third New England regional meeting of the American Institute of Accountants was held at the Hartford Club, Hartford, Connecticut, on December 10th.

The president of the regional organization, J. Edward Masters, presided.

Election of officers for the ensuing year resulted as follows: for president, Alfred P. Ward of Providence; secretary, Frederick Bond Cherrington of Boston (re-elected).

The following papers were read and followed by discussion:

The Banker and the Accountant by D. L. Chamberlain of New Haven.

Should Obsolescence Be Capitalized? by Earl A. Saliers of New Haven.

Plans for a campaign of educational publicity of an impersonal nature were explained briefly by the president and secretary of the Institute. The meeting expressed general approval.

Upon motion it was unanimously resolved that the recommendations of the executive committee contained in a confidential bulletin dated December 5th be approved.

In the evening an informal banquet was held at which the toastmaster was Irville A. May and speeches were delivered by Carl H. Nau, president of the American Institute of Accountants; A. P. Richardson, secretary of the American Institute of Accountants; Waldron H. Rand of Boston; Lewis G. Fisher of Providence and J. Edward Masters of Boston.

It was resolved that the next New England regional meeting should be held at Boston in June, 1922. The selection of the date was left to the committee on arrangements.

Marion Douglas

Marion Douglas, member of the American Institute of Accountants, certified public accountant of Texas, died at Galveston, Texas, December 8, 1921.

Mr. Douglas was president of the Texas Society of Certified Public Accountants, was formerly a member of the state board of accountancy and for many years had been prominent among the accountants of Texas.

Eugene B. Toomey, W. B. Jernigan and Leslie Abbott announce the formation of a partnership under the firm name of Toomey, Jernigan & Co., with offices at 342 Madison avenue, New York.

Lennox Nairn and Stanley W. Park announce the formation of a partnership practising under the firm name of Nairn & Park, with office at 56 Pine street, New York.

Morris J. Root announces the opening of offices at 610 Lafayette building, Philadelphia.

P. Dalziel announces the opening of offices at 802-803 Herald building, Calgary, Alberta, Canada.

Chester P. Child announces the removal of his office to 17 East 42nd street, New York.

Richard C. Mounsey announces the opening of an office at 918 Green building, Seattle Washington.

Vollum, Fernley & Vollum announce the removal of their offices to 112 South 16th street, Philadelphia.

Walter W. Ruble announces the opening of an office in the Mountain Trust building, Roanoke, Virginia.

Marwick, Mitchell & Co. announce that they have opened an office in the Merchants National Bank building, Indianapolis, Indiana.

Shmerler & Wolfe announce the removal of their office to 522 Fifth avenue, New York.

Rodger & McLeod announce the opening of offices at 204 Wilder building, Rochester, New York.

Book Reviews

FEDERAL INCOME TAX, by GEORGE E. HOLMES. *Bobbs-Merrill Company,* Indianapolis. 1151 pp.
1921 SUPPLEMENT.

Mr. Holmes has presented a very comprehensive digest of the income-tax and excess-profits-tax laws written from the standpoint of the lawyer, but in language easily understood by the layman. The main volume published in 1920 deals with the laws and treasury rulings up to January 1, 1920, while the supplement is practically a transcription of the treasury decisions, rulings and opinions published during 1920 in the weekly income-tax bulletins issued by the treasury department. A feature of the most practical value in the latter volume is the reference by page to corresponding subjects in the original volume.

It is a well arranged and altogether admirable piece of work, but it reminds the reviewer of nothing so much as the perennial question involved in building battleships: they are hardly off the ways before they are obsolescent, and a new post-dreadnaught, post-Jutland, post-day-before-yesterday, must be laid down at once or the country will go to the demnition bow-wows! The amendments of 1921, which will probably be enacted before this goes to press, fill fourteen pages of double-column, and with the hundreds of treasury rulings during 1921 make Mr. Holmes' book, and all others of the same class, practically out-of-date. The only safety for the practising accountant lies in the up-to-date information of the tax department of THE JOURNAL OF ACCOUNTANCY or a good tax service and the weekly government bulletins.

W. H. LAWTON.

DEPRECIATION CHARGES OF RAILROADS AND PUBLIC UTILITIES, by ROBERT A. CARTER and WILLIAM L. RANSOM. *A. W. Stevens,* 300 Washington street, Brooklyn, N. Y. 110 pp.

This pamphlet is a letter to the Interstate Commerce Commission written by Robert A. Carter, chairman of the committee on rate fundamentals of the American Gas Association, and Wm. L. Ransom, of the New York bar, late counsel to the New York public service commission. It is a protest against allowing the railroads to include in their rates any charge for "theoretical depreciation" in spite of the mandatory provisions of section 20, paragraph 5, of the interstate commerce act, as amended. Not that the commission is asked to ignore the law, but a very strong and plausible attempt is made to show that the "depreciation" of the act is not the "theoretical depreciation" of engineers and accountants.

The gist of the argument of the pamphlet is as follows: "Theoretical depreciation" is any depreciation based upon "life tables" and accrued in advance. Such provision is "fanciful," "unsound," "silly," and "all to the end that through these accruals current passengers and shippers may be compelled to a piecemeal but surreptitious 'purchase' of the property" (p. 25). Taken as a whole no railroad system or utility suffers any depreciation at all, as the constant repairs to and replacements of units keep the property at its original value.

There may be depreciation due to obsolescence but no reserve should be accumulated for this element because no one can tell in advance when any given unit may become obsolete, and, anyhow, a replacement for this cause should be charged to future consumers.

Hence, it follows that only actual repairs and replacements should be charged in the operating expenses and included in the basis for rate-making. If a unit is retired to make way for a better one, in other words, for obsolescence, and the replacement charge seems too large to include in operating expenses for a single year, it may be spread over a few years at the discretion of the commission.

The conclusions of the authors are summed up (p. 104):

"We submit, on the basis of the general American experience:

"(1) That the setting up of 'depreciation reserves' based on 'life tables' leads inevitably to an unjust and burdensome inflation of the rate charged to patrons and to the accrual of reserves vastly greater than are actually necessary to make provision for the retirements of property as and when they occur.

"(2) That when reserves are set up and accrued on this basis, the amount of such reserves constitutes the minimum amount which is sooner or later deducted from the sum on which the company would otherwise have its fair return calculated and would in any event be deducted from the sum which the government would pay for the property upon any acquisition of the same.

"(3) That this deduction is made in complete disregard of the fact that even including the net balance in such reserves as a part of the sum earned by the enterprise over and above actual operating charges, the aggregate figures still constitute less than the fair return which the enterprise was constitutionally entitled to earn upon the fair value of its property.

"(4) That where the matter of retirement expense is treated in a sound way, on the basis of actual outlays therefor, charged against operating expenses, none of these confiscatory consequences rises up to plague the enterprise and deprive its investors of their constitutional rights."

We think we have stated the case of the authors fairly. Many of their arguments are fallacious and the constructions placed upon some of the court decisions on which they rely for support of their contentions are decidedly odd. For example, the Knoxville Water case has always been regarded as settling the status of accruing depreciation as an element of rate-making, but accountants will be surprised to learn that the supreme court meant something entirely different. After quoting the language of the court (with which accountants interested are acquainted, so we do not requote), the authors comment as follows:

"This does not mean that a reserve for 'accrued depreciation' based on theoretical age must be provided, if provision is made for meeting all withdrawals and replacements of property when and as the need arises. If proper provision is made in operating expenses for current replacements, and the property is kept in a high state of repair and efficiency . . . the investment remains unimpaired and subject to no deduction, and no 'reserve' need be set up to create a pretext for a reduction." (p. 46.)

The reason given by the authors for this construction is that the court referred to "making good depreciation" synonymously with "replacing the parts of the property when they come to the end of their life." Apparently the authors overlooked the fact that in the same sentence the court remarked (also synonymously) that—

"Before coming to the question of profit at all the company is entitled to earn a sufficient sum annually to provide not only for current repairs but for making good the depreciation . . ."

If this does not mean the depreciation which is accruing annually we confess our inability to understand plain English. And it is equally plain that the court is referring to depreciation which is not made good by repairs.

Strained constructions are placed on the decision in the Minnesota rate case and in others; but this will suffice as an example. There are other cases wherein the argument is unfair and disingenuous, to say the least. Because old Roman aqueducts, old gas mains, dams, etc., show infinitesimally small depreciation, it does not follow that modern railroad and utility structures and equipment do not depreciate. In quoting *Bonbright vs. Geary,* it is asserted that the decision does not support "theoretical depreciation." Yet the extract quoted (pp. 68-69) shows that the court distinctly approved the accumulation of a reserve fund for replacements as "good business judgment." It doubted the reasonableness of the *amount* of depreciation found by the corporation commission, and it disapproved its failure to include the reserve fund in the valuation. Again, in the Medford Gas case (p. 99), the authors fail to notice that the New Jersey B. P. U. commissioners did deduct depreciation from the physical property, but restored it to the *intangible* value on the ground quoted, viz., that the previous net earnings had not been sufficient to provide for it together with a fair return. Nor did they notice the very significant fact that the new rate prescribed by the board provided for theoretical depreciation. Yet these cases and other similar ones are quoted in this pamphlet in an effort apparently to make the interstate commerce commissioners believe that courts and state commissioners are turning away from theoretical depreciation!

The Bonbright case brings up another point which is apparently overlooked by the authors, viz., that setting up a reserve for depreciation, while it lessens the value of the property so depreciated, does not lessen the value of the property as a whole. Correct setting up of the reserve concurrently creates a reserve fund in cash, and such reserve fund is certainly a part of the property "used and useful" to the public as long as it is maintained for the purpose of replacement; and therefore it should be added to the depreciated value of the plant in ascertaining the amount of the investment on which the fair return is to be earned. It is immaterial whether this amount is set aside in available funds or re-invested in the enterprise—that is a matter of policy for the management. If it is used in making extensions, it does not increase the total investment, since the reserve fund is correspondingly reduced. The total investment thus always remains at its original value.

The aim of theoretical depreciation is not, as the authors of this pamphlet mistakenly allege, to compel the consumer to "a piecemeal but surreptitious 'purchase' of the property," but on the contrary to insure its perpetual preservation for service. It means fair and level rates which will not be violently affected by heavy replacements in any one period. It means keeping the stockholders' investment intact. It means that profits will not be over-estimated, and money that should be retained for future replacements will not be paid away in unearned dividends. It means nothing more nor less than equalizing over a term of years in advance the expected loss to be incurred when a unit goes out of service. Repairs do not prevent the final "scrapping" of a unit, though they do prolong its serviceable life. The authors admit that spreading the cost of an actual replacement is allowable in certain instances. What is the difference in principle whether it be accrued in advance or amortized after the event? In practice, the amortization plan, which the authors advocate, would discriminate against future consumers since their increased rates would include not only ordinary repairs and renewals of their period but also the cost of making good the hidden depreciation caused by the use of the railroad property by present consumers. In any event the proposal to charge the cost of replacements to future consumers is impracticable. The constant fluctuation in rates would inevitably arouse the animosity of consumers who would be utterly unable to calculate their freight costs in advance. Such a policy on the part of the railroads would lead to an overwhelming demand for government ownership.

Admitting that some rates of depreciation assumed at present may be too high, thereby leading to the accumulation of excessive reserves, that is not to say that they may not be reduced to proper proportions as experience may show. The commission will attend to that. Present rates are based on such experience as we have had, but it must be remembered that it is only within a comparatively few years that railroads and other utilities have given any serious attention to the subject. As experience widens the base it will be an easy matter to obtain life-tables as trustworthy as those of life insurance companies. That there are such things as concrete water-pipes and earth dams which are so long-lived as to be practically out of the field of depreciation may be cheerfully admitted (though one may remark that even the "eternal mountains" are slowly but surely wearing away); but that is not to say that a railroad should make no provision to replace a freight-car whose life has been ascertained to be, say, twenty years on the average.

One more claim remains for consideration: that, taken *as a whole* railroad systems of any size do not depreciate in value because their units are so many that their replacement cost becomes a uniform charge year by year. That is half true. A point is reached when the depreciation charge in the rate is practically equaled every year by the actual cost of renewals and replacements. When that time comes, of course, the reserve remains at the same approximate amount year after year, and is of no practical use except as a concrete reminder that the railroad property *subject to depreciation has depreciated fifty per cent.* But it will be a long time before that point is reached in American railroading or in other utilities. As long as additions and extensions are made, so long will the day of perfect equilibrium be postponed. When the day comes that we have all the railroads we can possibly use, and no improvements can be made in equipment, it will be time enough to discuss the question of dispensing with the reserves and the provisions in the rates for them. At that time also directors whose hearts are wrung at the picture of consumers required to pay for depreciation incurred in their behalf may turn these reserves over to the stockholders in part return of their investment and make new rates based on the lessened (depreciated) value of their property. These new rates will then of necessity contain a provision for actual renewals and replacements only. But not before. Meanwhile the railroads should be allowed to make provision in advance for inevitable future replacements not only as a matter of "good business judgment," as Judge Morrow said, but also in order that they may maintain good service for the public.

We must apologize to our readers for dealing at such length with this survival of the dark ages of accounting, but, when names of such standing are appended to an attack on depreciation as an element of cost at this late day, it behooves us to take notice. Depreciation is a fact with which we must reckon, and a proposal to allow the largest industry in America to dispense with proper provision for it should be strenuously opposed by all advocates of honest and scientific accounting.

W. H. LAWTON.

EXCESS-PROFITS DUTY AND CORPORATION PROFITS TAX, by ROGER N. CARTER. *Gee & Company,* London. 138 pp.

Part of this book is taken from the author's larger work, *Guide to Income-tax Practice,* and it includes the new tax of 1920 on corporation profits. The purpose is to bring the practice and procedure up to date in view of the changes in the laws in the annual finance acts, and we assume the author also refers to the constructions placed on obscure or ambiguous clauses of the laws by the courts. Most of the contents are citations from court decisions.

Of course, the book is mainly for English accountants, but it will be useful to American firms with foreign offices, and also it should be valuable in furnishing citations from English decisions in cases arising under our own excess-profits-tax laws which are very similar to the English.

Full sections of the acts relating to the excess-profits duty and corporation-profits tax are given, and there is a good index.

W. H. LAWTON.

Whitfield, Whitcomb & Co. announce that Williams Cairns has become associated with them at 5 Central building, Seattle, Washington.

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