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CONTENTS

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Accounting System of New York Department of Water Supply

By L. E. Stander, C.P.A.*

The present article deals only with the main outlines of the accounting system in use by the department of water supply, gas and electricity in the city of New York. It has to do with aggregates and hardly touches upon more than the system of control accounts.

The classification of fixed capital accounts, revenue and operating expenses to be described may seem to some over-elaborate. But the following facts should be kept in mind:

(1) The present plant of the department is made up of what were formerly the separate plants of two of America's largest cities, together with the plants of a number of smaller communities. All these civil divisions were in 1898 amalgamated into the so-called Greater New York. The effect of this diverse origin of the activities of the present department is still traceable in its system of accounts. To add to the complexity of this system, several plants formerly owned privately have become city property, subsequent to the formation of the greater city.

(2) The area of the various watersheds, i. e., the rainfall area contributory to its reservoirs, the latter including the underground sources of the city water on Long Island—is nearly 600 square miles. (Data for the new supplementary Catskill water supply are here left out of account.) The number of reservoirs

*Auditor, Department of Water Supply, Gas and Electricity.

is 38. Over 143 miles of aqueduct and conduits—in many cases over 13 feet in diameter—bring the water to the city. Forty-five pumping stations—the vast bulk of these on Long Island—aid gravity in getting the water to the consumer. The number of miles of distribution mains is 3,085, varying from 4 inches to 66 inches in diameter. The number of hydrants for fire and general street service reaches a grand total of 44,427. The appraised value of the entire water supply system reaches the colossal figure of about $227,000,000.

(3) In addition to furnishing one of the primal necessities in the households of nearly five and one-half million people, the department furnishes this necessity to the largest centre of manufacture and of power stations—both steam and electric—in the western hemisphere, and perhaps in the world.

(4) The department constantly requires the services of over 2,000 employees in order to keep going.

(5) It has annual revenues from the sale of water totalling over $13,000,000. Of the small army of public servants just named, a force of over 400 is employed merely in the collection and recording of these revenues. The latter activity requires the keeping of over 400,000 individual accounts—including approximately 250,000 consumers' accounts on a frontage basis, 100,000 on a meter basis and 50,000 miscellaneous accounts. Thus the department of water supply, gas and electricity is a big thing, and a complex system of accounting is essential in order to keep a record of its manifold activities.

The accounting system of this department, as related to its main function, water supply, has been developed primarily with the view of determining readily the following facts:

(1) The value of the department's landed and non-landed capital.

(2) The revenue accruing to the department in a stated period by reason of water furnished or services incidental thereto, as distinguished from the actual receipt or collection of cash.

(3) The cost of operation, maintenance and other charges incurred during a stated period, irrespective of the date of payment.

(4) The excess of revenue over costs.

(5) Whether or not on the basis of the accounting results, accompanying statistics collected and unit costs, the department's business appears to have been conducted efficiently and economically.

DEFECTS IN ACCOUNTS.

Of course, from the point of view of a public utility enterprise privately owned, our system of accounts is incomplete. This is not due to faulty accounting, but to the fact that the department's business is conducted under certain requirements of the city charter, as well as certain rules and regulations imposed by the department of finance, the board of estimate and apportionment and other authorities. Our system of accounts—viewed as that of a non-municipal enterprise—is defective in the following respects:

(1) The absence of revenues from general municipal service.
(2) The absence of revenues from service for fire protection, in particular.
(3) The absence of revenues from service to eleemosynary institutions.
(4) The absence of the item "depreciation" in the operating expenses.
(5) The absence in the operating expenses of the value of services or supplies furnished to this department by other municipal departments.
(6) The absence in our expenditures of the interest and sinking fund accrual charges on the outstanding debt.

The reasons for these defects are stated below, the numbers corresponding with those given above for the items respectively in question:

(1) The absence of revenues from general municipal service is due to the fact that water is furnished free to all departments without any attempt to measure it, nor any appropriation being made for such service by these departments to reimburse this department for the value of the water furnished.

(2) No appropriation is made in the budget of the fire department to reimburse this department for the value of fire protection by reason of the installation and maintenance of hydrants and special mains.

(3) No attempt has been made to measure the amount of water furnished free to eleemosynary institutions. The value of this service should be properly included in the revenues and in the expenses.

(4) No definite plan has been adopted by the municipal authorities to provide for the accounting of depreciation either by appropriations to a reserve or otherwise.

(5) This item is not included in the operating expense account because no appropriation is included in this department's budget to reimburse other municipal departments for the value of services and of materials and supplies, such as rentals, stationery, supervision, etc., furnished by them.

(6) The absence of interest charges and sinking fund accruals in the income deductions is due to the fact that the board of estimate and apportionment and not this department has control of the issuing of bonds for the purposes of the water system. Nor are these bonds issued specifically for water purposes, but en bloc for general purposes, and they are allotted to this department by the comptroller from time to time to provide for actual disbursements.

It is realized that to correct these shortcomings would require changes both in the charter and in the municipal rules and regulations governing this department, and plans are under consideration to effect these changes.

BALANCE SHEET

In determining the investment in the existing water supply systems, a balance sheet was recently prepared. This was practically the first attempt made to show such a balance sheet. The amount of fixed capital was based upon an appraisal of the present worth of the existing plants made by the department's engineering bureau. The forms and procedure were outlined by the auditor of the department so that the classification might come up to accounting requirements. As a result of this classification, it is now possible to establish, with tolerable accuracy, the following:

(1) The value of the landed capital of the existing plants.
(2) The value of the non-landed capital.
(3) From (1) and (2) the amount of accrued and current depreciation, as well as appreciation.

In order to keep the appraisal of fixed capital up to date, a card system has been installed to provide for the entries of additions and withdrawals as they are made from time to time. In order to ascertain how nearly the appraisal made by the engineering bureau approaches the actual cost as measured by the expenditures from the proceeds of bonds issued, there has been prepared from various published reports, dating from 1842, a statement showing such cost.

The items entered on the assets side are:

(1) Fixed capital, classified as (a) landed capital, (b) non-landed capital, (c) accrued depreciation of capital, (d) net total.

(2) Current assets, namely consumers' accounts outstanding, and accounts with (a) city chamberlain (b) receiver of taxes and (c) collector of assessments and arrears.

(3) Unexpended balances of appropriations classified as: (a) corporate stock funds, (b) appropriations—tax levy, (c) water revenue fund of Brooklyn*, (d) other special or trust accounts, (e) revenue bond fund appropriations.

(4) Inventories, classified as (a) stores, and (b) equipment—portable—in use, the latter is not included in fixed capital.

It might be explained that accounts a, b and c under 2 above are necessitated by the fact that all collections made by this department are turned over to the city chamberlain; all accounts older than eighteen months are turned over to the receiver of taxes for collection, and, in the event of further delinquency, to the collector of assessments and arrears.

Account c under 3 above is required by a stipulation of the city charter that the expenditures for the borough of Brooklyn water supply system, including extensions and sinking fund charges, shall not be raised by taxation but be appropriated directly from the revenues.

*Prior to 1913 no stores records were kept, but all purchases were considered as expenditures.

The items on the liabilities side are:

(1) Outstanding funded debt (at present to be worked out periodically from the records of the department of finance).

(2) Capital surplus, i. e., excess of fixed capital over funded debt.

(3) Liabilities on unexpended balances, classified as (a) payrolls, (b) open market orders outstanding, (c) contract liabilities outstanding, and (d) reservations for contingent liabilities and rescindments in favor of general fund for reduction of taxation.

(4) Working surplus to balance inventories shown on the assets side.

(5) Surplus applicable to sinking fund instalments, redemption of debt, etc.

CLASSIFICATION OF NON-LANDED CAPITAL

The non-landed fixed capital accounts are as follows:

(1) Collection and storage system accounts, consisting of: (a) impounding reservoirs, (b) wells, (c) infiltration galleries, (d) aqueducts and conduits, (e) distributing reservoirs, (f) water filtration plants, (g) sewage disposal plants, (h) chlorinating plants.

(2) The accounts having reference to pumping are of two classes, those registering the changes in (a) buildings and (b) machinery. In each case accounts are kept separately for low pressure and high pressure buildings and machinery.

(3) The accounts having reference to the distribution of the water supply are likewise kept separately for the low-pressure and the high-pressure systems. For each system the principal accounts are: (a) mains and appurtenances, (b) valves, and (c) hydrants and connections.

REVENUE ACCOUNTS

Up to the present time the only accounts kept have been the following: (a) meter rate revenue, (b) frontage rate revenue, (c) miscellaneous revenues from sale of water, and (d) miscellaneous revenues other than from sale of water. It is proposed in the future to amplify the broad classifications of meter-

rate and frontage-rate revenues so as to separate them into (a) domestic, (b) commercial and (c) industrial, and to add the new accounts (d) municipal and (e) free, in order to arrive at an estimate of the value of these two services and incidentally to determine the variations in the per capita consumption of water. The miscellaneous revenue accounts will likewise be subdivided to an even greater degree.

OPERATING EXPENSES

The classification of operating expenses in use by the department conforms substantially with that used by the public-service commissions of the various states, but it has been modified in the sub-accounts to meet the comptroller's budget classifications. There are of course two main subdivisions of expense accounts: (a) those having reference to administration and operation, and (b) maintenance, i. e., repairs and replacements. The following are the main accounts of the two classes named:

(1) General administration—executive.

(2) Bureau of water supply—water supply operating department subdivided under (a) administration, (b) collection and storage, (c) purification, (d) low pressure pumping, (e) high pressure pumping, (f) distribution, (g) analyzing and testing, (h) meter testing stations, (i) free service other than municipal (new account) and (j) undistributed.

(3) Accounts having reference to water revenue collected, classified as (a) administration, (b) accounting and (c) inspection.

REPORTING EXPENDITURES

The above are of course the main accounts, which are further subdivided so that the total operating expense accounts aggregate nearly one thousand. Expenditures are incurred every day over the wide sweep of territory indicated at the beginning of this article and by many scores of employees of the department. In order to enable each employee responsible for any item of expenditure to report it properly—i. e., assign it to the proper account—as well as to cut down the amount of writing necessary, a bulletin has been prepared listing in logical order the titles of these several hundred accounts that are kept, and assigning to each

account or kind of expense a special symbol. An employee who has often to report expenditures soon memorizes the symbols for the comparatively few accounts with which he has to deal. All requisitions on departmental storekeepers or purchasing agents must contain such symbol for each item specified in a requisition, thus showing its functional or expense classification. Likewise on the face of all invoices, other than those for goods delivered to storehouses, on time and service records, vouchers, etc., the symbols denoting such classification must be entered.

ILLUMINATION, POWER AND HEAT CONTROL

In addition to the accounts already mentioned as having to do with the general administration of the department and its main function of water supply, another set of accounts keeps a record of departmental activities relative to illumination, power and heat control. A considerable number of accounts, for example, is needed to record the administrative items of the bureau of gas and electricity, as (a) salaries and wages, (b) supplies, (c) hire of horses, vehicles and drivers, (d) office equipment, etc.

Recording the activities of the bureau named are (a) street and park lighting accounts, (b) lighting public buildings, (c) heat and power for city departments, (d) gas examination, (e) electrical inspection, (f) moving picture inspection.

The extent of these activities may be gleaned from the following facts: on January 1, 1915, the department had to light 2,676 miles of streets, 10 square miles of parks and about 3,000 public buildings, beside the regulatory work of (a) testing the quality of gas, (b) installation of electrical wiring, etc., and (c) supervision of moving picture theatres. It requires 230 employees, with salaries aggregating $255,000 annually, to perform this work properly and an additional appropriation of $4,030,000 for the lighting of streets and furnishing light, heat and power to municipal buildings.

THE ACCOUNTING FORCE OF THE DEPARTMENT.

In conclusion a brief description is furnished of the staff that handles the mass of accounting detail of which a bird's-eye view has just been given.

The accounting staff, numbering usually 237 men, is under the supervision of the auditor and is divided in three divisions:

(1) Fund accounting and auditing division,
(2) Costs and statistics division.
(3) Division of revenue collection.

(1) The fund accounting and auditing division keeps the following records: (a) appropriation funds, (b) corporate stock funds, (c) special or trust funds, (d) general ledgers and (e) claimants' ledger. The personnel numbers 13. It might be explained that the department receives two distinct classes of funds, viz.: (1) appropriation funds and (2) corporate stock funds. The former are raised by tax levy and, in the case of Brooklyn, from water revenue. All expenditures for additions and betterments are met by funds derived from the sale of corporate stock.

(2) The costs and statistics division keeps the following records: (a) stores ledgers, (b) equipment records, (c) analytical records of expense and construction, (d) machine shop records, (e) motor vehicles and (f) efficiency and statistics of pumping stations. This division prepares all financial and statistical reports. The personnel numbers 17.

(3) The division of revenue collection maintains central accounting control over the financial records kept in the bureau of water register and is responsible for the establishing of the proper charges and collections from the sale of water and from various miscellaneous sources throughout the branch offices of the department. The personnel numbers 207. The employees in the accounting branches of this division are under the joint supervision of the water register and the auditor.

Industrial Accounting

III.

By F. J. Knoeppel, C.P.A.

"Operation cost" should be considered as comprehending four classes of expense or cost:

Class 1. Requiring heavy, almost continuous, financial attention—quick liabilities—as labor, supplies, etc.;

Class 2. Requiring slight, periodic (annual) financial attention—suspense accounts—as fire and boiler insurance, taxes, etc.;

Class 3. Requiring no immediate financial consideration—use of property—as depreciation;

Class 4. Requiring absolutely no financial attention—use of capital—as interest on investment.

"Financial attention or consideration," as used here, has reference to the demand for working capital and not to the conservation of assets. Under adverse industrial conditions a knowledge of the proportionate value of each of these four elements entering into the total cost of an article is invaluable. Yet it is at this very point that accountants and engineers have primarily differed. The accountant has always endeavored to keep separate the elements of cost according to bookkeeping classification—and rightly so. The engineer has shown contempt for these same classifications, arguing, quite properly, that true unit cost was most essential.

The main difference is that the accountant has emphasized the importance of economic classifications, and the engineer the value of service classifications. Any service cost may include a number of economic cost elements, so that the engineer's method destroys fundamental economic divisions; while the accountant's method fails to secure the most accurate determination of cost. Both methods being faulty, yet based upon sound reason, it follows that neither should be abandoned, but a combination of both be effected. This will be considered further in a succeeding article.

It should be noted that material cost is not treated as an element of operation cost, being, in the truest sense of the word, prime or first cost. Labor is frequently referred to as prime cost, but should more properly be called—when used as a value upon which to charge or distribute overhead—basic cost. In these articles we will consider labor as the basic element of "operation cost," and material as a distinctly separate element. In converting plants, where more than one product results from a given raw material, material may properly become a part of operation cost.

In the preceding articles we have dealt only with such elements of cost as are referred to under class one, at the opening of this article. In the second article certain exclusions from group E (supplies) were advised, because the items could be secured through other and more natural sources than that of the chief storekeeper. Such information would come through reports on the operation of the factory power plant, gas producer, clay-mill, slip-mill, kiln, cupola, etc.

As reports of this kind are possible of wide variation in the form of presentation, they will not be gone into in this series of articles, but will be referred to, when necessary, as special reports.

The accumulation and presentation of data so far considered may be reviewed by an examination of chart I.

The most obvious elements of cost have been considered in relation to service and productive operation cost. The elements under classes 2, 3 and 4 do not force themselves so continuously upon our attention, and in some factories we find them ignored absolutely in the manufacturing cost.

Class two is frequently considered under administration expense; class three as a charge or reduction from gross profit, when it is not entirely overlooked; while class four is usually disregarded altogether—it being generally held that it is not an item of cost, but rather a portion of anticipated profit.

Much has been written on the subject of interest as an element of cost, and many views have been presented. It seems that the debatable question is not: Is interest an element of cost?—for it certainly is not—but: Will the inclusion of interest as an element of cost assist in intelligent management? Its inclusion as an element of manufacturing cost will most assuredly assist in

Industrial Accounting III (2)

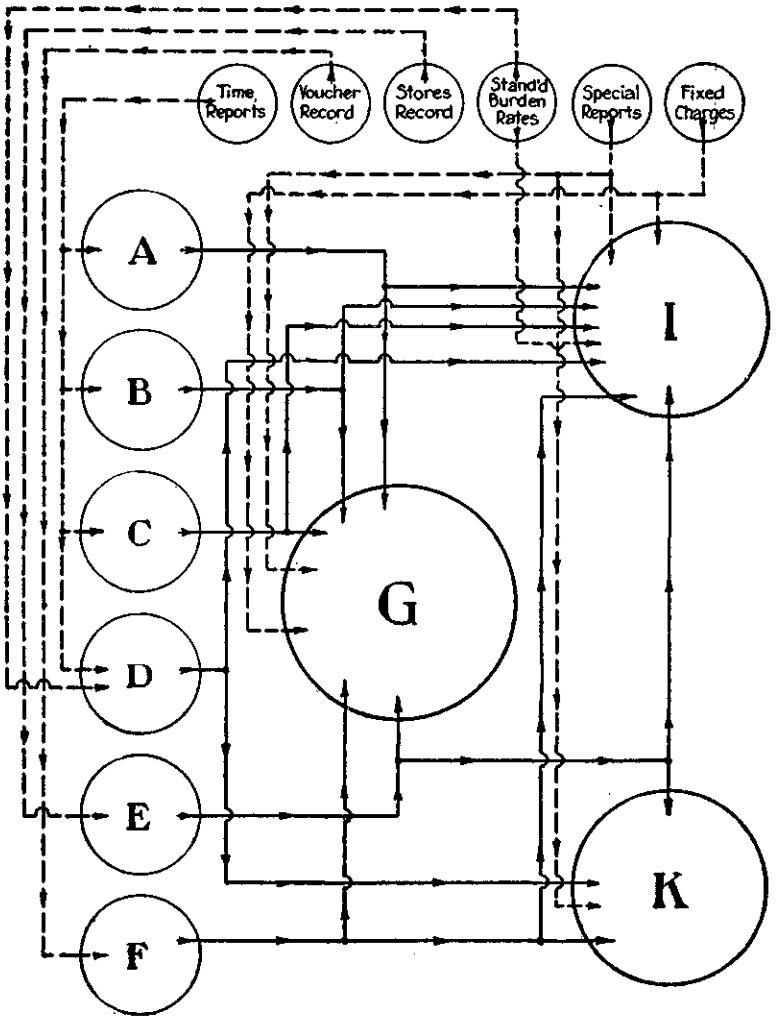

CHART I

Industrial Accounting III (4)

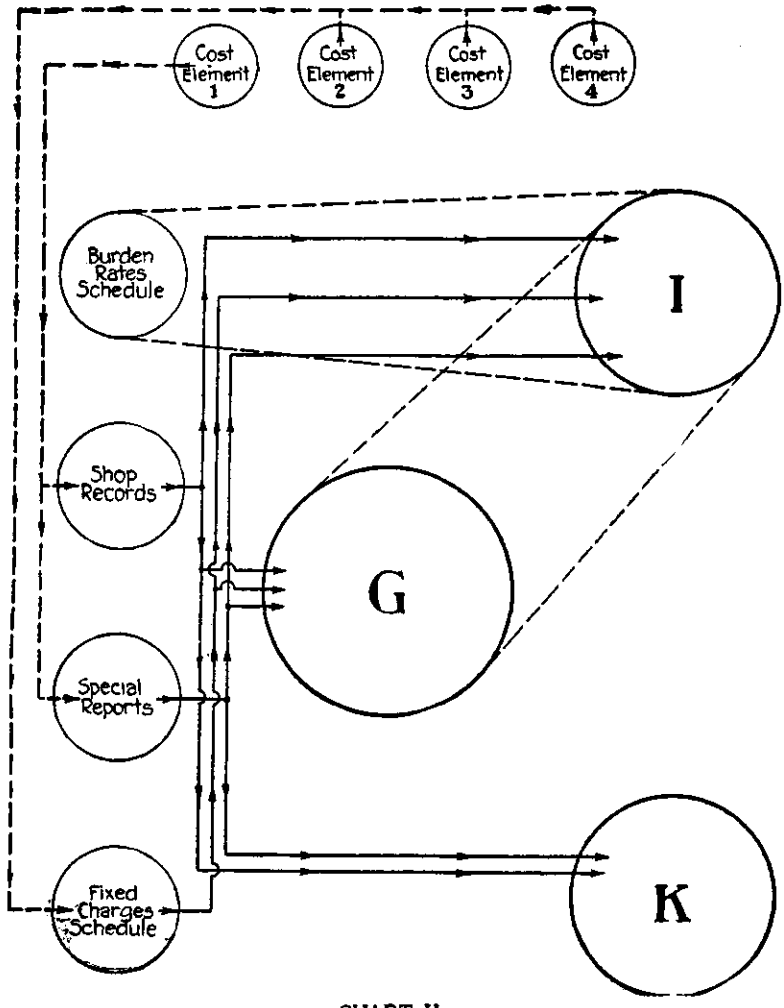

CHART II

intelligent management, because it will register, through cost, the minimum amount that must be secured above actual cost, based upon the fixed capital employed, so as to render productive operations profitable. In a business engaged in producing an article of one kind and grade the consideration of interest on investment would be without value; while in a business carrying on a highly diversified production its inclusion would be positively essential, because neither the total sales value nor any other element of cost entering into the production of an article can indicate the value of the capital permanently invested for its manufacture.

On the other hand, interest paid on mortgaged industrial property has no proper place in factory cost, being purely a financial expense. The question of cost with regard to the interest on such encumbrances may be briefly answered by stating that actual interest paid must always be charged against finances and that economic interest on all industrially employed property, whether encumbered or unencumbered, must always be charged against factory cost. An encumbered piece of property would require two interest charges to be made.

1. Debit: Interest paid (financial expense)
   Credit: Interest payable (liability)
2. Debit: Interest charge (factory cost)
   Credit: Anticipated return on permanent investment (net investment)

The three remaining classes of cost are usually referred to as constant burden or fixed charges. These elements of cost are hardly affected by any but the most marked changes in degree of productive activity carried on. They have, so to speak, no inception with production itself, their incidence being related directly to the physical organization. For this reason shop reports cannot be employed to bring such costs into final cost summaries, and some other means must be devised.

These costs are also frequently termed annual charges, which clearly expresses the time element underlying this cost. Taxes and insurance are paid on annual basis, depreciation is rated per annum, and interest is expressed in per annum rates. These cost elements also have a direct relation to valuation.

A complete analysis of all industrial property must be made on the basis of valuation, in accordance with the organized operations and service activities. Under each division—service and productive—a further division of property by class must be established, for purpose of determining annual depreciation charges. A schedule should be prepared, based upon such analysis. The use of the schedule is shown in chart I. The form of the schedule would be as follows:

MONTHLY SCHEDULE OF FIXED CHARGES

To be applied against	Valuation	Depreciation	Interest	Fire insurance	Taxes
Operation A.	$ .00	$ .00	$ .00	$ .00	$ .00
" B.	$ .00	$ .00	$ .00	$ .00	$ .00
" C.	$ .00	$ .00	$ .00	$ .00	$ .00
" D.	$ .00	$ .00	$ .00	$ .00	$ .00
" E.	$ .00	$ .00	$ .00	$ .00	$ .00
" F	$ .00	$ .00	$ .00	$ .00	$ .00
etc.,	$ .00	$ .00	$ .00	$ .00	$ .00
Service Ga.	$ .00	$ .00	$ .00	$ .00	$ .00
" Gb.	$ .00	$ .00	$ .00	$ .00	$ .00
" Gc.	$ .00	$ .00	$ .00	$ .00	$ .00
" Gd.	$ .00	$ .00	$ .00	$ .00	$ .00
" Ge.	$ .00	$ .00	$ .00	$ .00	$ .00
" Gf.	$ .00	$ .00	$ .00	$ .00	$ .00
etc.,	$ .00	$ .00	$ .00	$ .00	$ .00
TOTAL	$xx.xx	$xx.xx	$xx.xx	$xx.xx	$xx.xx
	1.	2.	3.	4.	5.

The accounting department will periodically—in this case every month—incorporate the costs appearing under operations in columns 2, 3, 4 and 5 into the proper group I, and the costs appearing under services in columns 2, 3, 4 and 5 into the proper group G.

The accounting department will also use this schedule for the purpose of a monthly journal entry:

Debit: Depreciation (factory cost) 2 $xx.xx,
Interest on investment (factory cost) 3 $xx.xx,
Fire insurance (factory cost) 4 $xx.xx,
Taxes (factory cost) 5 $xx.xx,

Credit: Reserve for restoration (negative asset) 2 $xx.xx
Anticipated return on fixed capital (net investment) 3 $xx.xx
Fire insurance (deferred charge asset) 4 $xx.xx
Taxes (accrued liability) 5 $xx.xx

A similar schedule must also be established to cover property not directly or indirectly employed in manufacture or used by the organization concerned with factory operations or management. Its discussion is, however, beyond the scope of these articles.

We may now review the flow of data, with regard to *class,* rather than with regard to the *method* of securing cost, by an examination of chart II.

Chart II indicates as the next consideration the relationship existing between G and I, to be followed by a consideration of burden rates with regard to I.

Every productive operation (I) requires floor space; some require heat, light, power, tool maintenance, etc., and also attention with regard to moving materials, timekeeping, etc. Having segregated all such overhead or burden as to class of service, it remains for us to distribute these costs most equitably to the productive operations.

The principles governing such distribution were set forth in the second article, and from the rules established it will be clear that the distribution of service cost really means:

1. Crediting service according to productive activity,
2. Treating the undistributed balance as waste,
3. Debiting productive operations according to productive activity.

If we were to express the transaction in accordance with usual accounting practice, the following would be proper:

Debit:	Operation A.	$xx.xx
	" B.	$xx.xx
	" C.	$xx.xx
	" D.	$xx.xx
	Wasted service	$xx.xx
Credit:	Service Ga.	$xx.xx

However, such journalization is not needed, as the usual factory cost ledger is unnecessary, the entry being given merely for the purpose of a clearer exposition of the accounting theory.

As previously outlined the charges are to be made at standard rates, and it is not unlikely that no two departments or operations would be charged at the same rate for the use of a specific service. However, the basic rate would be the same. To illustrate: supposing the cost of floor space to be set at 8c per square foot hour, and department A requires 100 square feet in which to carry on its operations, while department B requires 200 square feet of space in which to carry on its operations. At eight cents per square foot hour, basic rate, a full hour in department A would cost $8.00, and in department B $16.00. Another element must be considered, and that is the normal productive hours within each department. Let this be expressed as:

Dept. A. 40 productive hours per hour.
Dept. B. 100 " " " "

The chargeable rate is:

Dept. A. 20c. per productive hour ($ 8.00÷ 40)
Dept. B. 16c. " " " ($16.00÷100)

Having determined the various chargeable rates for each class of service a schedule should be established, somewhat as follows:

SCHEDULE OF SERVICE RATES

Basis.....

Effective.....191

CREDIT

CHARGE	Ga	Gb	Gc	Gd	Ge	Gf	Gg	Gh	Gi	Gj	Gk	Gl	Gm	Gn	Go	Gp	Total
Operation A.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" B.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" C.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" D.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
etc., etc.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
Service Ga.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" Gb.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" Gc.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" Gd.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" Ge.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
" Gf.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
etc., etc.	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@
TOTAL	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@	@

It will be noticed that rates are included for charging service activities for the use of other classes of service, viz.:

Gb. (steam generation) would be charged for use of Ga. (occupancy);

Gc. (power generation) would be charged for use of Gb. (steam generation).

However, charges to service activities cannot be based upon productivity, but must be made at a flat monthly rate, or, as in the use of steam by power, upon the basis of actual steam used—always using the standard rate per M pounds or established unit of measure. This also applies to such productive operations as are in the nature of processes, as hardening, annealing, burning, drying, etc. Three methods of charging must therefore be employed:

1. On the basis of productivity (wages—count—hours)
2. On the basis of actual use (meters—logs, etc.)
3. On the basis of elapsed period (monthly charges).

Group G presentations should be arranged so as to exhibit:

(a) Cost forecast,

(b) Actual cost,

(c) Utilized cost.

The cost forecast or estimated cost should be based upon at least a year's operations, because such items as repairing, painting, etc., do not occur continuously or with definite regularity. In factories using live steam for heating, the actual cost varies greatly from season to season; still, it would be misleading rather than enlightening to treat the cost of production during the month of August as free from any charge for heating, and to charge production during January at the actual high heating cost natural to that month. We may forecast heating cost on the basis of, let us say, $3,600.00 a year, of which $3,000.00 is actually necessary during eight months, and only $600.00 demanded for the remaining four months, at $300.00 for each month of the year.

A separate sub-grouping must be established for each class of service, as previously outlined. Although the elements of cost comprising each class of service are not entirely similar the following presentation should serve as a general illustration.

A. Cost forecast:

(1)	Service Ga.	(annual)	%
(2)	Service Gb.	(annual)	%
(3)	Service Gc.	(annual)	%
(4)	Etc., etc.,	(annual)	%
(5)	Interest,	(annual)	%
(6)	Depreciation	(annual)	%
(7)	Insurance & taxes	(annual)	%
(8)	Labor	(annual)	%
(9)	Supplies	(annual)	%
(10)	Etc., etc.,	(annual)	%
(11)	Total 1 to 10 incl.	(annual)	100%
(12)	Average (11)	(monthly)	

B. Actual cost:

(1)	Service Ga.	(monthly and cumulative)
(2)	Service Gb.	(monthly and cumulative)
(3)	Service Gc.	(monthly and cumulative)
(4)	Etc., etc.,	(monthly and cumulative)
(5)	Interest	(monthly and cumulative)
(6)	Depreciation	(monthly and cumulative)
(7)	Insurance and taxes	(monthly and cumulative)
(8)	Labor	(monthly and cumulative)
(9)	Supplies	(monthly and cumulative)
(10)	Etc., etc.,	(monthly and cumulative)
(11)	Total 1 to 10 incl.	(monthly and cumulative)

C. Utilized cost (monthly and cumulative)

D. Utilized cost below forecast (monthly and cumulative)

E. " " above " (monthly and cumulative)

F. Actual cost below " (monthly and cumulative)

G. " " above " (monthly and cumulative)

The accounting department must transfer the values appearing under classifications D, E, F and G to group H presentation.

Utilized cost (C) is in the nature of a credit amount; the equal debit value being charged into the proper groups I (review of departmental accomplishment), on the basis of productivity, actual consumption, etc., at the established service rates as already outlined.

No general ledger entries as required.

Classification D (utilized cost below forecast) is a measure of inefficiency, or, rather, it expresses the degree of efficiency below 100%. Classification E (utilized cost above forecast) expresses the degree of efficiency above 100%. Both D and E express relative efficiency as to energies provided and utilized.

Classification F (actual cost below forecast) is a measure of economy—providing the forecast is accurate. Classification G (actual cost above forecast) is a measure of waste—providing the forecast is accurate.

Such service economy as is exhibited by classifications F and G cannot be viewed intelligently without considering both the factors of utilization and forecast. These will be considered in the next article.

Railroad Operating Expenses and Property Values

By A. M. Sakolski.

The United States supreme court decisions in the *Northern Pacific Railroad Company vs. North Dakota,* and in the *Norfolk and Western Railway vs. West Virginia* cases of March 15, 1915, upheld the principle that the reasonableness of passenger or freight rates shall be determined with reference to a fair return on the value of the property used in each class of service. This is an application of Justice Hughes' ruling in the Minnesota rate cases that when rates are in controversy "there should be assigned to each business that portion of the total value of the property which will correspond to the extent of its employment in the business." It is also in line with the "cost-of-service" rate-making policy of the interstate commerce commission expressed in the five per cent. rate case (1) and exemplified by the accounting order effective July 1, 1915, whereby the railroads are required to classify certain expense items as passenger, freight and mixed and to apportion as between passenger and freight most of the items common to both services. The order, however, prescribes only to a limited extent the rules for apportionment. Thus, yard expenses not directly assignable are to be allotted on the basis of the number of switching locomotives in each service. No rules are laid down for the subdivision of maintenance of way costs, and these are to be recorded in the accounts as undivided.

The question of the separation of operating expenses as between passenger and freight service is not new. As early as 1850, in accordance with the recommendation of the state engineer and surveyor, the New York legislature enacted a general railroad law which provided that the railroad companies classify "all the items under the heads of expense of maintaining the road or real estate of the corporations, expense of machinery or personal property—expense of use of road and machinery," etc.,

(1) "In our opinion each branch of the service should contribute its proper share of the cost of operation and of return upon the property devoted to the use of the public."—31 I.C.C. p. 392.

under two heads, the one showing cost of freight transportation, the other, the cost of passenger transportation (1). No basis of separation was prescribed. Accordingly, during the forty years when the provision was nominally in effect, the railroad companies reported the separation of expenses as they desired (2) —a number submitting statements showing no separation whatever.

Prior to 1894, a separation of freight and passenger expenses was required in the annual statements of the carriers to the interstate commerce commission. This was abandoned after earnest solicitation by railroad accountants, state railway commissioners and statisticians (3). Several of the railroad companies, however, notably the Pennsylvania Railroad, for administrative purposes continued to apportion certain operating costs on an arbitrary basis, but were careful not to designate the results as correct cost accounting data (4). Accordingly there were few, if any, serious attempts to apply the results in rate controversies.

Of late years, owing to the growth of the "cost-of-service" principle as an element in reasonable rate determination several attempts have been made to go further than any of the railroad companies or the regulating commissions in the matter of separation of operating expenses and property values as between the passenger and freight services.

In 1914, under the auspices of the state of Oklahoma, a comprehensive scheme was drawn up for the apportionment of expenses between passenger and freight services. This experiment was the result of the work of a committee of which James

(1) See laws of New York, 1850, chap. 140.

(2) In the year 1882 the New York Central and Hudson River Railroad's apportionment was on the basis of one-third passenger and two-thirds freight; the Erie's ratios of apportionment were 24% passenger, and 76% freight. The Delaware, Lackawanna and Western had a still different basis of apportionment.

(3) Thus, the committee on uniformity of accounts of the National Association of Railway Commissioners reported in 1892:

> "The test of actual practice fails to satisfy us that these rules (i. e., concerning separation of passenger and freight expenses) are of any utility either to the companies, the states, or the nation. Indeed, if not substantially correct they could not be expected to be useful and may prove positively vicious. We know that results have been reached by the application of these rules for division which are grossly erroneous not to say preposterous."—*Proceedings of the Fourth Annual Convention of the National Association of Railway Commissioners*, p. 23.

(4) See testimony of President Rea of the Pennsylvania Railroad in the five per cent. case, p. 4155, et seq. Also *Proceedings of the 26th Convention of the American Economic Association*, p. 93.

Peabody, statistician of the Atchison, Topeka & Santa Fé, was chairman. Nothing is yet known of its application to any railroad system, and in view of the interstate commerce commission's accounting order directing a new classification of expenses as passenger, freight and mixed, it is probable that the Oklahoma plan will not be put into operation. Its influence, however, is noticeable in the more recently proposed schemes and has been, no doubt, a factor of encouragement to the interstate commerce commission to develop a workable plan to enforce a strict cost accounting system upon the railroads.

Apparently with a view to furthering its cost accounting plans the interstate commerce commission, in its recent investigation—western passenger fares—sent out an interrogatory regarding the methods ordinarily used in the separation of passenger and freight expenses. Information was requested as to the amounts directly allocated to passenger and freight services, the amounts regarded as common, and the method believed by each carrier to be the most equitable for the assignment of common expenses. From the replies recorded, the commission, without advocating or upholding any method, enumerated the following different bases of allocating expenses not directly assignable to either service.

Basis I—An arbitrary formula adopted or customarily used by the carrier.

Basis II—Revenue engine ton-miles (sometimes termed locomotive weight miles).

Basis III—Revenue train miles.

Basis IV—Locomotive repairs and transportation costs.

Basis V—Engine ton miles, including switching and yard engine ton-miles.

Basis VI—Combination of all of the foregoing.

It is evident that this classification is neither scientific nor instructive. In fact, there are only two distinct bases in the whole classification—(1) engine weight and (2) train mileage. Bases II and V designate use as the product of engine weight and engine miles. Basis III, on the other hand, eliminates the element of weight and restricts the measure to train-miles. For the purpose of merely gauging operating efficiency from year to year and for studying the trend of expenses by class of service, the train-mile basis of apportionment, from a practical administrative

standpoint, is not objectionable (1). But for thorough, scientific analysis and as a correct and accurate accounting device it is wholly inadequate. As a yard-stick it measures only one of many factors which influence relative costs of operation assignable to different classes of service. Its chief defect as a statistical unit lies in its lack of homogeneity by reason of which no consideration is given to two most pronounced elements of damage to road-bed and track, weight and speed (2).

Obviously, the ignoring of weight and speed as elements affecting maintenance costs is a serious omission. However, it is claimed that the high speed of passenger trains is an equalizing factor offsetting the excess of weight of freight trains, and for this reason neither weight nor speed need be considered in the application of the train-mile unit for measuring cost of maintenance. The advocates of the locomotive weight basis, however, refer to the fact that the size of the locomotive indicates roughly the weight and character of the whole train, and inasmuch as the greater speed of passenger trains necessitates more hauling power than would be required to move a freight train of equal weight, the locomotive-ton-mile unit makes allowance for the speed factor in computations of relative damage to road-bed and track. It is for this reason that the locomotive-ton-mile (3) is undoubtedly superior to the train-mile as a measure of relative use. This is recognized by the interstate commerce commission in its analysis, but at the same time attention is called to the following fact:

> There is . . . a large proportion of the expenses incident to the maintenance of way and structures that is influenced only to a small extent and certain expenses are not influenced at all by the weight and speed of the trains that pass over the track. The action of the elements and deterioration of materials will go on whether trains pass over the tracks or not. It is uncertain how much of any particular item of expense is due to action of the elements and how much to wear. (4)

(1) It is interesting to note that the train-mileage basis of apportionment has been long used by the Pennsylvania Railroad and was also adopted and used by the interstate commerce commission during the period 1888-1893 inclusive, when reports of operating expenses separated as between passenger and freight were required from the carriers. It was also partly adopted in 1907 by the Wisconsin railroad commission, whose method of apportioning freight and passenger expenses was followed by the postmaster-general in an inquiry concerning the cost of carrying mails to the railroads.

(2) For a discussion of the defects of the "train-mile" as a statistical unit see the author's *American Railroad Economics*, p. 151.

(3) By the "locomotive ton-mile basis" is meant the weight of the locomotive, exclusive of the tender, multiplied by the miles run.

(4) Western passenger fares case decided Dec. 7, 1915.

In the hearings before the commission, the testimony of a number of operating and accounting officials of long experience supported the locomotive-ton-mile basis as the most logical and practical method for apportioning expenses common to freight and passenger service.

This unit was used in the Oklahoma scheme and has been designated by a committee of the Association of American Railway Accounting Officers as capable of producing more nearly correct results than any other basis suggested. It is claimed that the use of the locomotive-ton-mile unit gives full consideration to the greater destructive force caused by the clutching action of the driving wheels. Various estimates have been made of this factor of wear and tear, but no data are available for the establishment of a definite ratio; and even if by experimentation a ratio were established, the value of its application to a particular line of railroad is exceedingly doubtful.

Notwithstanding its merits as a statistical unit, the use of the locomotive-ton-mile as a basis for apportioning maintenance costs of tracks used jointly in passenger and freight service has been strongly opposed by many railroad officers and engineers. The committee on corporate, fiscal and general accounts of the American Railway Accounting Officers in a recent report (January 21, 1915) refused to endorse the locomotive-ton-mile unit on the ground that no means were available for ascertaining whether the excess weight of passenger as compared with freight locomotives in relation to loads hauled makes the necessary correction for speed. Until the relationship between train speed and track damage is definitely determined, apportionment of costs based on comparative locomotive weights is a guess in the dark. (1.)

In two recent investigations involving separation of freight and passenger costs, the locomotive ton-mile unit was rejected in favor of another and more practical standard—the gross-train-weight-mile. The gross-train-weight-mile as the most suitable

(1) An objection to the use of actual locomotive ton-miles in the allocation of railroad maintenance charges is the absence of indication of the maximum loads, which determine the design and materially affect the rate of deterioration of railroad structures. Experience has proven that the greatest damage is done by those loads which create stresses near the elastic limits of the material employed, whereas loads within these limits may be repeated many millions of times without any apparent effect.—See *The Allocation of Railroad Operating Costs*, by Paul M. LaRach in *Engineering Record*, May 13, 1916.

gauge of track wear was adopted by William J. Wilgus in an analysis of passenger service costs on the Ulster and Delaware Railroad, and by W. W. Sparrow in an appraisal of the Mississippi River and Bonne Terre Railroad made for the Missouri public service commission (1). This unit, it seems, was first recommended in a little book written by T. M. R. Talcott in 1904. The author, however, considered some modification of the unit necessary in order to allow for difference in the average rate of speed of passenger and of freight trains. He accordingly suggested multiplying the gross ton-miles of each class of trains by the average speed in miles per hours of that class, thereby obtaining a train-weight-hour-mile.

It is strongly contended by Mr. Wilgus that, generally speaking, speed causes no appreciable difference in the relative effect per ton of weight of passenger and freight trains, if in considering the higher speeds of passenger trains equal attention is paid to destructive agencies peculiar to the freight service, such as "drippings and droppings from coal and refrigerator cars, imperfections of equipment and heavier wheel concentration, twisting action of the locomotives at slow speeds, and the interference of slow trains with track labor, the fouling and destructive action of the products of combustion of inferior grades of coal often used in freight services and the more frequent stoppages and reversals of movements."

Mr. Wilgus admits that, considering the locomotive alone, more damage is done per ton of locomotive weight than per ton of loaded car weight, but this effect is frequently offset by the greater wear caused by the smaller car wheel diameter, less perfect construction and higher up-keep of cars, and the car drippings and droppings. He concludes, therefore, that "under average conditions, a gross ton of passenger train creates the same destructive effect on track and bridges as a gross ton weight of freight train; and that an attempt to assign constructive tonnage to portions of the rolling load as a measure of their assumed excess wear and tear of track and structures will result either in complications and contradictions or in so many variations in the formula as to make the exceptions the rule."

(1) These reports have not been published.

W. W. Sparrow, in his report of the valuation of the Mississippi and Bonne Terre Railroad, used the gross ton-mile basis of apportionment with less assurance of its exactitude for the desired purpose than Mr. Wilgus. "In the absence of any exact and scientific basis for determining the relative amount of injury done the track by freight and passenger service," he states "the gross-ton-mile method is more reasonable and equitable in arriving at what in the final analysis cannot be regarded as anything but an approximation."

The selection by two experienced railroad engineers of the gross train weight mile as the best available unit of apportioning track maintenance cost as between freight and passenger service might be expected to have resulted from a long investigation and general acceptance of this standard. This does not seem to be the case, however. In 1913 a committee of the American Railway Engineering Association had recommended an "equivalent ton-mile," computed from the following formula:

> Double the freight locomotive mileage times average weight per locomotive.
>
> Four times the passenger locomotive mileage times the average weight.
>
> Total freight ton-miles (cars and contents).
>
> Double the passenger ton miles (cars and contents).

This formula in effect denotes that the passenger train causes double the damage of the freight train, and that one ton of locomotive weight affects the track as much as two tons of the train weight back of the locomotive. There was vigorous opposition to these views, some engineers pointing out that although passenger traffic as a rule required more expensive roadbed and better upkeep, the freight trains were relatively as destructive of track, if not more so of the track structure. The whole matter was therefore referred to the committee for further study and no subsequent report has yet been made.

In controversies involving separate consideration of passenger and freight rates, the assignment of the operating expenses to the two classes of service is only one side of the problem. The proper division of property value is of equal if not greater importance. Here, the task does not readily admit of scientific analysis. Valuation, at best, is merely a series of approximations. It is

more a matter of judgment than of mathematical formulas (1). Hence, to endeavor to obtain an approximation on the basis of other approximations merely widens the margin of possible errors and may lead to ridiculous results. Both the supreme court and the interstate commerce commission have discountenanced the division of property investment on an arbitrary basis. In the Minnesota rate decision, Justice Hughes denied the contention that gross earnings or net revenue could be made "the basis of the apportionment."

> If the property is to be divided according to the value of the use, it is plain that the gross earnings method is not an accurate measure of value. The value of the use, as measured by the return cannot be made the criterion when the return is itself in question.

In the western passenger case, several railroads submitted to the interstate commerce commission as a basis of apportionment the same ratio of the book cost of the property as had been arbitrarily assigned to costs common to each service. The commission not only rejected the use of the book cost as indicating property value, but also branded as unsatisfactory the "arbitrary method of assigning of this or that portion of the book cost of the entire property to the passenger service." (2)

Since Justice Hughes in the Minnesota rate case suggested that the basis of apportionment of property investment is "to be found in the use that is made of the property," recent investigations have been directed toward the creation of a yard-stick for measuring the comparative extent of use in respect to property devoted to the joint passenger and freight service. Mr. Wilgus in preparing the case of the Ulster and Delaware Railroad in its petition to the New York public service commission for higher passenger fares, apportioned the value of property in joint use on the same ratio basis as was applied in apportioning the expenses of maintenance of such property. Thus the gross train weight miles, i. e., the gross train tonnage unit, was used. This

(1) "The ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment, having its basis in a proper consideration of all relevant facts."—Minnesota rate cases, 230 U. S. 434.

(2) 37 I. C. C. Several years ago the Pennsylvania Railroad made a rough estimate of property investment allotted separately to passenger and freight service. The formula used was based on expenditures for replacements during a period of 20 years, it being assumed that the entire replacement of the property was covered in a period of twenty years.—Five per cent. case, p. 4156-7.

resulted in 61.2% of the property in joint use being apportioned to freight business and 38.8% to the passenger business. (1.)

Mr. Sparrow, in the valuation of the Mississippi and Bonne Terre Railroad, avoided the application of a single arbitrary unit as a measure of the comparative use of property devoted to joint service. In order to obtain accurate information on which to base estimates, he made tests of actual use of the property during the month of September, 1914. As a result of these tests, he applied to each item of railroad property in joint service a separate yard-stick which in his judgment was best adapted for gauging relative use. The basis of apportionment of roadway items and the freight and passenger percentages are shown in the following table:

BASIS OF APPORTIONMENT OF MAIN-LINE ROAD ITEMS AND FREIGHT AND PASSENGER PERCENTAGES

Account	Basis of apportionment	Per cent. of total Freight	Passenger
Engineering	Average of value of allocations, accounts 3 to 46 inclusive	77.5	22.5
Grading; bridges, trestles and culverts; ties; rails; other track material; ballast; track laying and surfacing; roadway buildings; roadway machines; roadway small tools.	Locomotive ton-miles	76.5	23.5
Land for transportation purposes; tunnels and subways, right-of-way fences; crossings and signs; signals and interlockers	Revenue train miles	45	55
Station and office buildings	Detailed estimate made separating such space in exclusive use of freight or passenger service. Space in joint service apportioned on basis of revenue train-mile	..	..
Water stations	Cost of water supplied to each class of service	78	22
Fuel stations	Cost of fuel supplied to each class of service Apportionment between freight and passenger is made for whole system and then further apportioned between main and branch lines on locomotive-mile basis.	78	22

(1) The New York public service commission of the second district did not pass on the merits of Mr. Wilgus' method, having refused the petition of the railroad for increased passenger rates on the ground that it had no power to grant a rate higher than the maximum permitted by legislative authority.

BASIS OF APPORTIONMENT OF MAIN-LINE ROAD ITEMS AND FREIGHT AND PASSENGER PERCENTAGES—*Continued*

Account	Basis of apportionment	Per cent. of total Freight	Passenger
Shops and engine houses	Cost of service rendered	66	34
Engine house and miscellaneous buildings, Herculaneum			
Buildings under this account located at Bonne Terre	Apportionment between freight and passenger made for whole system as shown below, and then further apportioned between main and branch lines.	..	..
Machine and boiler shop	Cost of locomotive repairs	80	20
Engine house	Cost of service rendered	90	10
Flue rack and flue-cleaning sheds; oil houses; sand dry-house; sand trestle; cinder pit.	Locomotive-miles	70	30
Woodworking shop	Cost of repairs to freight and passenger cars	90	10
Blacksmith's shop; coal house; master mechanic's office and vault	Cost of repairs to all equipment	88	12
Paint shop	Used exclusively in passenger service	..	100
Store house; yard toilet house; hose house; scrap platform; sewerage and drainage; water-supply system.	Average of value of above allocations	73.5	26.5
Power-plant buildings	Apportioned on basis of power supplied and amounts allocated to freight and passenger service of shops to which power is supplied		
Boiler and pump room		80	20
Transformer house		88	12
Power distribution system	Same basis as power-plant buildings	83	12
Shop machinery			
Property under this account located at Riverside, Herculaneum, Flat River, Rivermines and Elvins	Cost of locomotive repairs	80	20
Property under this account located at Bonne Terre in common to whole system.	Apportionment between freight and passenger made for whole system as shown below, and then further apportioned between main and branch lines		
Engine house	Cost of service performed	90	10
Machine shop; boiler shop	Cost of locomotive repairs	80	20
Flue cleaning shed	Locomotive miles	76.5	23.5
Woodworking shop	Cost of repairs to freight and passenger cars	90	10
Blacksmith's shop; master mechanic's office	Cost of repairs to all equipment	88	12
Paint shop	Used exclusively for passenger	..	100
Miscellaneous tools and equipment in Bonne Terre yards	Average of values of above allocations	82.5	17.5
Power-plant machinery	Apportioned on basis of power supplied and amounts allocated to freight and passenger service of shops to which power is supplied	80	20
Power substation apparatus	Same basis as power-plant machinery	88	12

The foregoing table indicates that wherever possible actual conditions were made the basis of determining the apportionment and that arbitraries or units were resorted to only when there was no physical evidence of proportionate use. Moreover, Mr. Sparrow did not limit himself to a universal yard-stick. He used loco-

motive-ton-miles as a basis for estimating the proportionate use of road-bed, bridges, trestles and track superstructures, whereas revenue train-miles were applied in apportioning the value of right of way, tunnels, fences, signals, interlockers, etc. On the other hand, the simple locomotive-mile was the basis of apportionment of value of flue-rack and flue cleaning sheds, oil houses, sand trestles and cinder pits. It is also the unit of apportionment of fuel and machine shop costs as between main line and branches. The division of repair shop investment is on the basis of the comparative repair costs on freight and passenger equipment, and the power plant is apportioned on the basis of power supplied to freight and passenger service.

The work equipment has been apportioned between freight and passenger service on the basis of locomotive-ton-miles, as it is believed that the relative volume of traffic thus reflects the use made of this class of equipment. The percentage to freight service is 80, and to passenger service 20. The results thus obtained were then apportioned between main and branch lines on the relative percentages that the locomotive ton-miles for each class of service for each system are to the total.

Mr. Sparrow's report contains no defense of his methods of apportionment. They are the result of his own personal judgment or the judgment of others concerned in the investigation. The task was an exceedingly difficult one, notwithstanding that the railroad under valuation comprised only thirty miles of main line and twenty-four miles of branches.

The systematic efforts thus far made artificially to separate by formulas property values and operating expenses as between freight and passenger business do not seem to have added anything toward the equitable adjustment of rate controversies. The problems resemble a complicated system of wheels within wheels. Even the most ardent of cost accounting advocates must admit that no formula or device, however well considered, can be uniformly and equitably applied to all railroads or to the same railroad under all conditions of traffic. This is aside from the fact that cost-of-service as a gauge of reasonableness of specific rates "cannot be accurately established by mere theoretical refinements regarding the separation of property values and operating costs."

County Audits*

By A. Lee Rawlings, C.P.A.

Probably no other field to-day offers a greater opportunity for development in accounting than that of counties. It has been only within the past few years that the authorities have realized the value and appreciated the services of accountants in connection with the administration of county affairs, and even to-day only a small percentage of counties are audited and their accounts properly stated by recognized accountants. Few county treasurers keep what might be considered proper and complete sets of books; their records, with few exceptions, deal with cash receipts and disbursements only, no account being taken of revenues uncollected and expenses accrued and unpaid.

Without going too much into detail, I shall endeavor to give an outline of the methods employed and the procedure to be followed in making an audit of the financial affairs of a county. The accountant naturally has to be governed by local conditions and the system in use in each individual case. In presenting this paper, I shall confine myself chiefly to audits of Virginia counties, although the illustrations given are applicable to counties in other states which have similar tax laws and conduct their affairs along similar lines.

In Virginia, the financial affairs of counties are under the control of what is known as a board of supervisors which lays the various tax levies and authorizes expenditure of all moneys, with the exception of school funds, as noted hereinafter. The tax levies, licences, etc., are assessed by the commissioners of revenue under authority of the board, with the exception of railroads and other public service corporations which are assessed by the corporation commission. Taxes and other levies are collected by the treasurer, who is the bonded custodian of all funds and who makes all disbursements upon proper orders of the board of supervisors. The clerk of the court collects certain delinquent taxes and turns the funds over to the treasurer. In some states (North Carolina, for instance) the taxes are col-

* A paper read before the tri-state meeting at Richmond, Virginia, April 14, 1916.

lected by the sheriff and deposited in the bank to the credit of the treasurer. The clerk of the court acts as secretary or clerk to the board of supervisors and it is his duty to keep a complete record of all meetings and business transactions of the board.

Counties are usually divided into two or more commissioner's districts, according to the size of the county, with a commissioner of revenue for each district and these districts are subdivided into magisterial districts, with a representative from each district on the board of supervisors.

AUDIT PROCEDURE.

The principal records to be examined in making an audit are as follows:

Minutes of board of supervisors;
Books of commissioners of revenue, including dog tax levies and licences;
State corporation commission assessments;
Record of taxes redeemed before sale;
Delinquent land sales;
Taxes redeemed after sale, from clerk of the court;
Insolvents and delinquents;
Paid warrants;
Court exonerations.

There are also certain funds received from the state, such as capitation, automobile tax, state aid for roads, school funds, etc., which have to be verified by the records in the office of the first and second auditors at Richmond.

In entering upon the examination, the accountant should ascertain if all records covering the period to be audited are in hand and should make an inventory or list of all records to be examined. The minutes of the board of supervisors should first be examined and extracts made of all minutes affecting the funds or finances of the county. The next record to be examined is that of the commissioners of revenue and the examiner should see that the levies extended are in accordance with the tax levies laid by the board of supervisors, as shown by the minutes of the board. The state tax on property assessed by the corporation commission is extended and collected directly by the state and the auditor is not concerned as to this. The county tax is extended

by the commissioner of revenue or oftentimes by the treasurer, in accordance with the stipulated tax rate of the county and districts. The books of the commissioner of revenue are supposed to be examined and certified by the clerk of the court, but this examination is only perfunctory and should not be relied upon by the accountant as correct. The commissioner's books should be carefully examined to see that all pages are intact and in numerical sequence and the pages should be checked. It is not necessary to prove each individual page or item. By applying the authorized tax levies to the values as shown in the "re-caps," it is possible to verify the correctness of the commissioner's books in a comparatively short time. If proper accounts are kept by the treasurer, the various receipts and disbursements can be readily checked and verified; otherwise, the accountant has to build up the accounts as he proceeds with the audit.

There are usually miscellaneous receipts, represented by the sale of road equipment, money borrowed, rents, refunds, etc., which as a rule can be verified by the minutes of the board.

FIVE PER CENT. PENALTY.

Under the law, five per cent. is added to all taxes uncollected at December 1st, and the auditor should see that the penalty is properly credited to the various funds. In a number of instances it has been found that the penalty has been added to the tax tickets and collected but no account has been taken of it in making settlements. As a result the treasurer received the benefit of the penalty in addition to his regular commissions.

After all receipts from taxes and other sources, as previously enumerated, have been gathered and verified, the auditor should take up the disbursements which, with the exception of the treasurer's commissions in some cases, are represented by paid warrants, court exonerations and insolvents and delinquents. The paid warrants should be checked against the stubs in the warrant books in order to ascertain the outstanding warrants and against the records of the board of supervisors as to authority for payment. Insolvents and delinquents should show the approval of the board of supervisors and the accountant should see that the tax tickets, corresponding with the list for which credit is allowed the treasurer, are properly filed in the clerk's office.

TREASURER'S COMMISSIONS

There has been much contention in Virginia as to commissions to which treasurers are properly entitled for receiving and disbursing levies, and I recall only a few instances in which the treasurer's commissions have been properly computed. Section 613 of the Virginia tax laws, reads as follows:

> Every treasurer shall be allowed for his services in receiving and paying over the revenues on amounts of twenty-five thousand dollars, and less, five per centum, and on amounts in excess of twenty-five thousand dollars, three and one-half per centum, which shall be the entire compensation allowed treasurers in counties and cities in which the revenue exceeds twenty-five thousand dollars; provided that in counties and cities in which the revenue does not exceed ten thousand dollars, he shall, in addition to the five per centum, receive four per centum on all revenues remaining unpaid on December first and collected by him; and in counties and cities in which the revenue exceeds ten thousand and does not exceed fifteen thousand dollars, he shall, in addition to the five per centum, receive three per centum on all revenues remaining unpaid December first and collected by him; provided further that the commissions of the city treasurer for collecting and paying over the revenue where the annual collection is in excess of sixty thousand dollars, shall be at the rate of two per centum on such excess, provided further that, where the revenue exceeds fifteen thousand dollars but is not sufficient in excess thereof to make the treasurer's compensation as much as it would have been had such revenue been less than fifteen thousand dollars, the treasurer shall be entitled to two per centum commission on all revenue remaining unpaid the first of December and collected by him up to fifteen thousand dollars.

Under the foregoing law, a great many treasurers treat each fund or levy separately and, accordingly, charge straight five per cent. commissions on all taxes collected. Under an act approved March 23, 1912, the general assembly of Virginia construed sections 613, 614 and 1515 of the code as follows:

> In computing commissions of the treasurer for receiving and disbursing state revenues, under section 613, such revenues shall be treated as a separate and distinct fund; in computing his commissions for receiving and disbursing the county levies, except those for school purposes, including all moneys collected by order of the county authorities for any purpose under section 614, such county levies, except those for school purposes, including all moneys collected by order of the county authorities for any purpose, shall be treated as a separate and distinct fund, and in computing his commissions under section 1515, for receiving and disbursing county and district school levies, such levies shall be treated as a separate and distinct fund.

While the validity of the present statute is questioned, for the reason that the function of the legislature is to make laws rather than to construe them, so far, no court test of the statute in question has been made and until such is done it seems proper that the treasurer's commissions should be figured in accordance with

the law as construed by the legislature. It is customary to apportion the treasurer's commissions among the various funds, although the statute does not appear to provide for such apportionment. Under the present law, provision is made for treasurer's commissions with salaries and compensations of other officers out of the general fund at the time the tax levies are laid by the board of supervisors. The apportionment of the treasurer's commissions among the various funds, however, appears to be more equitable than charging the entire amount against the county fund and, in my opinion, the law should be amended in this respect.

HOW FUNDS SHOULD BE SPENT

At present, the tax levies are laid for specific purposes, namely, general county purposes; county roads, parish or poor fund; district roads, district schools; interest; sinking fund, etc. These funds should be kept separate and the money cannot legally be spent for any other purpose than that for which it was levied. Automobile tax and state aid road fund can be spent only for permanent improvements and up-keep of roads, the law requiring that the county shall appropriate from its funds a sum equal to the amount contributed by the state. In a number of instances I have found that the counties failed to make these appropriations and transfers as required by law and it is not unusual to find that funds have been improperly diverted or expended for purposes other than those for which levies were made. These are matters which should receive the careful attention of the examiner and any diversion of funds should be brought to the attention of the board of supervisors and the moneys replaced.

LOANS

It is not unusual for counties to borrow money from the local banks in anticipation of the collection of current taxes; and this is a matter with which the accountant should be much concerned lest he may omit charging the treasurer with funds received. The authority of the board to borrow money without a special act of the legislature may be questioned; however, it is often done and the banks, or those who lend the money, would probably be the only ones who could suffer. If the loans have been

repaid, the accountant will probably find warrants to cover, but it is advisable to make inquiry of banks and other sources as to money borrowed in order that any outstanding loans may be properly incorporated in the treasurer's receipts.

SCHOOL ACCOUNTS

School levies for both county and district purposes are laid by the board of supervisors. The schools also receive certain aid from the state, the funds being forwarded direct to the treasurer —usually, in two instalments. An apportionment also comes from the literary fund. In addition, the school board often borrows money from the literary fund in connection with the purchase of property and construction and equipment of school buildings. The state school money as well as the county school levy under the law can be spent only for the pay of teachers, while the district levy can be used for any legitimate purpose.

Treasurers are allowed one per cent. commissions on state funds and the commissions on county and district funds should be computed on the same basis as county levies, namely, five per cent. on the first twenty-five thousand dollars and three and one-half per cent. on the balance. Each school district has a local board which disburses the funds of that particular district by warrants on the treasurer. The treasurer makes his settlement with the school board for all school funds and the division superintendent, who has charge of the schools in the county, in turn makes a report to the department of public instruction at Richmond. The board of supervisors has nothing to do with the school funds aside from laying the levy.

There are numerous matters in connection with the administration of school affairs which I shall not undertake to discuss for fear of making this paper too lengthy, but in making an examination it will be well for the accountant to make a careful study of the conditions and school reports in order that his work may be as effective as possible.

Children in one district may attend schools in other districts on account of their accessibility or nearness, in which event tuition is paid to the district in which the school attended is located. Warrants in payment of such tuition are usually drawn to the order of the treasurer and the accountant should see that

proper credit is given the district in favor of which the warrants are drawn—otherwise the balance in the hands of the treasurer will be understated.

TREASURER'S SETTLEMENTS

The fiscal year of counties in Virginia ends June 30th, and the settlements with treasurers are supposed to be made as of that date, although a great many treasurers include all transactions up to the date of their settlement. The settlements of county and district funds, exclusive of school funds, are made with the board of supervisors, while the school funds are settled with the school board, as previously noted. Treasurer's settlements with the board of supervisors and school board are invariably made on different dates. This, in my opinion, is improper for more reasons than one. The settlements with both boards should be made simultaneously, and any balance due the state should be taken into consideration also, in order to arrive at the true status of the treasurer's balances and funds in hand. To illustrate: the treasurer may settle with the board of supervisors on a certain date and owe the various funds, say $20,000.00, for which he exhibits certificates from banks showing funds on deposit. Later, settlement is made with the school board showing approximately the same amount due school funds. A certificate from the bank is exhibited, showing the required funds on deposit; and in this way, balances aggregating, say, $40,000.00, may be settled with only $20,000.00. Little importance should be attached by the accountant to bank certificates alone as to the balances in hand—not that banks would knowingly be guilty of anything wrong, but because if the treasurer so desired, it would be an easy matter to transfer funds or "kite" cheques at the time of making settlement and withdraw or take care of the item subsequently. The auditor should reconcile the bank account with pass-books or statements from the bank and should satisfy himself that all deposits of recent date, as well as outstanding cheques, are regular.

There is a tendency among treasurers, for political and other reasons, to delay the collection of taxes of friends and others from whom they do not desire to collect promptly. In a number of cases, I have had tax tickets submitted as representing actual

funds in settlement of balances due by treasurers. The treasurer is supposed to submit to the board of supervisors and receive credit for all uncollectible taxes when he makes his settlement, and any tax tickets not so turned in are presumed to have been paid by the treasurer, in which event he is required to have actual funds in hand or on deposit with authorized depositories equal to balances due.

Authorized warrants paid by the treasurer prior to his settlement and not included in the disbursements are proper credits and should be treated by the accountant as funds in hand.

An accountant is frequently employed to make an examination of special funds—he may be called upon to audit the accounts which come under the supervision of the board of supervisors; on the other hand, he may be employed to audit the school accounts alone. In my opinion, a proper examination and certification cannot be made of any one fund or a number of funds without examining or taking into consideration all funds including the state funds under the control of the treasurer; and this is a matter which it would be well for the accountant to consider and bring to the attention of the authorities before making the examination.

Aside from making a thorough examination of the accounts and funds, the accountant should give due consideration to all matters affecting the conduct of the county's affairs and make such recommendations as in his opinion would serve to safeguard the funds and increase the efficiency of the various officers. If bonds are outstanding, he should see that proper provision has been made for sinking fund and that the funds are either invested or deposited in bank on interest.

BOOKKEEPING SYSTEM

Out of a number of counties which I have examined, I recall only two treasurers who kept accounts and funds in accordance with the law. Some treasurers keep no books at all and simply carry the paid warrants on file until annual settlements are made. In other cases, I have found levies credited to the proper accounts on the books and the accounts charged with warrants paid. This, however, does not comply with the law. The treasurer should know the actual amount of cash in each particular fund at all

times rather than the balance as shown by the accounts. To illustrate: the levy for a particular purpose may be $10,000.00; warrants aggregating $5,000.00 have been paid, leaving a credit of $5,000.00 to the account. As a matter of fact, the collections for this particular fund may have amounted to only $4,000.00 and the $5,000.00 disbursed makes the fund actually overdrawn $1,000.00.

In order to comply strictly with the law, the treasurer should keep a cash book with columns for the various funds on both the debit and credit sides—the receipts and disbursements to be entered in the respective columns. Such record would make it possible to ascertain the actual cash balance as a whole or by particular funds at any time. Most treasurers pay warrants as long as they have money in hand, regardless of the availability of funds for the particular purpose for which warrants are drawn, and rely upon their annual settlement to show the true status of affairs.

Such inefficient systems and methods as those mentioned demonstrate plainly the lax and unbusinesslike manner in which the affairs of counties and political subdivisions are administered, necessarily resulting in a heavy drain on public funds. A uniform system of accounting is needed for counties, for more reasons than one, and all counties should be placed on a strictly budgetary basis to the end that there may be an accurate check both as to revenues and expenses.

In 1914, Virginia called a special session of the legislature and spent approximately $100,000.00 in an effort to revise the present tax laws and establish an equitable system of taxation. Strange to say, no consideration whatever appears to have been given to the handling or administration of the finances of counties and a number of inconsistencies in the present law were apparently overlooked. At present, the fiscal year of counties in Virginia ends June 30th, while the treasurer's term of office expires December 31st, thus necessitating two settlements of the treasurer in one year and an additional expense to the county for commissions on funds turned over to the incoming treasurer. The auditor of public accounts at Richmond requires an annual statement of receipts and disbursements to be made by counties, but

beyond this the state department apparently has nothing to do with the financial affairs of counties.

I believe it would be both wisdom and economy to place counties under the supervision of a state department similar to that of banks and insurance companies, and that counties should be required to adopt a uniform system for handling their accounts and finances. Such a plan, in my opinion, would result in a saving of many thousands of dollars annually to the counties and would also serve to increase the demand for the services of recognized accountants.

The Journal of Accountancy

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A. P. RICHARDSON, Editor

EDITORIAL

Intangible Values in Balance Sheets

It is always a pleasure to make an advance in business sentiment and practice toward higher levels of finance and accounting. Corporation annual reports form a field for interesting study in business frankness and fairness to investors, and it must be admitted that not many years ago most of them left much to be desired. Rapid changes have occurred and now the reports of corporations in this country are in the main reasonably satisfactory and some of them are excellent.

For a long time corporation directors were reluctant to disclose in any detail the values placed upon the various items constituting the sum total of the capital assets. Tangible and intangible assets were lumped together in one total with little descriptive wording. In fact, it often required persistent urging on the part of accountants to get some directors to agree to go even so far as to add the word "goodwill" to the "cost of properties" caption. Accountants have, however, agreed that where substantial sums have been paid in cash or securities for goodwill, patents or other elements of intangible values, the fact, if not the amount, must be disclosed in a balance sheet bearing their certificate.

While insisting that the balance sheet caption "cost of properties" or any of its equivalents is misleading when used to cover indiscriminately both tangible and intangible assets, the leading accountants have advised their clients, especially in the case of new corporations, to take a long step forward and frankly disclose

the capitalized value of all intangible assets. That the practice of making such a disclosure is steadily growing must be apparent to everyone who has had occasion to look at many recent annual reports.

In order to ascertain how general the practice has now become, THE JOURNAL OF ACCOUNTANCY has made an examination of a wide range of recent reports, and as the resulting list is highly gratifying, not only in numbers but also in the standing of the corporations, we present it below. In all probability the list is incomplete and in later issues we shall be glad to present the names of additional companies if those interested will kindly call our attention thereto.

With a view to ascertaining the year in which each company began to disclose in its annual report the amount of its intangible assets, we addressed an inquiry to each one and in so far as information has been received we have inserted the year of first publication opposite the name of the company. Many of the companies named below have been incorporated within a few years, but, of course, in a large proportion of cases the businesses now operated by them were established long before the incorporation of the companies.

This list constitutes a real honor roll and we are glad to present it herewith:

Advance Rumely Co.	
Ajax Rubber Co., Inc.	1906
Allis-Chalmers Manufacturing Co.	1913
American Agricultural Chemical Co.	1900
American Brass Co.	1900
American Chicle Co.	
American Cigar Co.	1913
American Coal Products Co.	
American Cotton Oil Co.	1891
American Cyanamid Co.	1913
American District Telegraph Co. of N. J.	1913
American Ice Co.	1904
American Pneumatic Service Co.	1912
American Rolling Mill Co.	
American Telephone & Telegraph Co.	1900
American Tobacco Co.	1897
American Wringer Co.	
American Writing Paper Co.	1899
Associated Merchants Co.	

Atlas Powder Co. 1913
Barnhart Brothers & Spindler 1912
Bliss (E. W.) Co. ....
Brown Shoe Co., Inc. ....
Burns Bros. (Inc.) ....
Butterick Co. 1902
Case (J. I.) Threshing Machine Co. 1912
Central Foundry Co. ....
Central Mexico Light & Power Co. 1910
Chicago Railway Equipment Co. 1908
Chicago Telephone Co. ....
Cluett, Peabody & Co., Inc. 1914
Consumers Company 1914
Continental Can Co., Inc. 1913
Creamery Package Manufacturing Co. ....
Crex Carpet Co. ....
Cuban-American Sugar Co. ....
Cumberland Telephone & Telegraph Co. ....
Deere & Co. 1912
Diamond Match Co. 1907
Driggs-Seabury Ordnance Co. 1915
Electric Boat Co. ....
Electric Storage Battery Co. 1903
Electric Properties Corporation ....
Ely & Walker Dry Goods Co. 1909
Emerson-Brantingham Co. 1912
Exchange Buffet Corporation 1914
Fisk Rubber Co. 1913
Gair (Robert) Co. 1913
Galena Signal Oil Co. ....
General Baking Co. 1912
General Motors Co. 1910
General Railway Signal Co. 1904
Goodrich (The B. F.) Co. 1913
Harrison Brothers & Co., Inc. ....
Hart, Schaffner & Marx, Inc. 1910
Holt Manufacturing Co. 1912
Houston Oil Company of Texas ....
Ingersoll-Rand Co. 1905
International Silver Co. ....
Kaufmann Department Stores, Inc. 1913
Kayser (Julius) & Co. 1911
Kings County Electric Light & Power Co. ....
Kresge (S. S.) Co. 1912
Lanston Monotype Machine Co. 1904
Liggett & Myers Tobacco Co. 1914
Lisk Mfg. Co. ....

Locomobile Co. of America, The.....1912
Lorillard (P.) Co. .....
McCall Corporation .....
McCrory Stores Corporation .....
Manhattan Shirt Co. 1912
Maxwell Motor Car, Inc. 1913
May Department Stores Co. 1915
Mountain States Telephone & Telegraph Co.....
National Cloak & Suit Co. .....
National Fire Proofing Co.....1915
Newton (Geo. B.) Coal Co. 1912
Peerless Truck & Motor Corporation.....
Remington Typewriter Co. 1915
Reynolds (R. J.) Tobacco Co.....1912
Ridgway Co. .....
Sears, Roebuck & Co. 1912
Standard Motor Construction Co.....1900
Stern Bros. 1910
Stewart-Warner Speedometer Corp. 1912
Studebaker Corporation 1911
Sulzberger & Sons Co. .....
Underwood Typewriter Co. .....
United Cigar Mfgrs. Co. 1914
United Dry Goods Companies.....
United Shoe Machinery Corporation.....1899
United States Worsted Co. .....
Western Canada Flour Mills Co., Ltd.....
Westinghouse Air Brake Co. 1913
Westinghouse Electric & Mfg. Co. 1906
Willys-Overland Co. 1913
Woolworth (F. W.) Co. .....

How to Help

The American Association of Public Accountants is the owner of THE JOURNAL OF ACCOUNTANCY, and it might naturally be expected that all the members would feel a deep concern in the welfare of their property. Yet it is unfortunately true that there are many members of the association who are not subscribers to THE JOURNAL, and there are even more members whose interest is purely passive.

Let those who are not actively working for the prosperity of THE JOURNAL read the following letter which has been received from one of THE JOURNAL'S best friends. After reading the letter may its suggestions be taken to heart.

Public accountants are in a particularly advantageous position to advise clients to subscribe for THE JOURNAL for their benefit and that of the bookkeeping staff. But if a member of the American Association of Public Accountants is not a subscriber, and we know there are some who are not, he cannot with conviction advise others to do something he has neglected to do. Not only should all members be subscribers and thus lend a tangible support to their official organ, but each should take advantage of every opportunity to bring THE JOURNAL to the attention of accounting officers of corporations and firms. Members in convention assembled discuss the ways and means of securing recognition of their professional status, but more than discussions in conventions must be done. The business world must know. THE JOURNAL is the best medium by which to circulate articles bearing on all subjects in connection with public accounting, so all accountants should use their best endeavors to increase the circulation and to see that it is read by people whose enlightenment will be a benefit to themselves as well as to the practising public accountants.

At one of the conventions you called attention to the fact that a number of accountants were not subscribers to THE JOURNAL. That condition may now be corrected. If it is not, it should be, possibly through efforts of the state societies.

My small practice takes me into many states and requires much travelling, so I cannot do as much as I want to do, as I do not get time, but I do, when possible, bring the merits of THE JOURNAL to the attention of those whom I think it will benefit, thus in my small way assisting in giving accounting practice indirect advertising. Concerted action on the part of members might bring good results.

Annual Meeting of The American Association

The annual meeting of the American Association of Public Accountants will be held in New York September 19, 20 and 21, 1916. A trustees' meeting will be held on the 18th.

It is expected that there will be an exceptionally large attendance of delegates and other members, inasmuch as the question of reorganization of the American Association is to be under discussion, and the report of the special committee on form of organization is certain to arouse the interest of the entire membership.

The committee on annual meeting has omitted technical papers from the programme with the idea of leaving the meeting free to discuss the committee reports, many of which will be of major importance. It is earnestly hoped that every member who can attend will be there and take part in the deliberations of the meeting.

The full programme which has been approved by the board of trustees follows:

Monday, September 18

9:30 A. M.—Meeting of the board of trustees.

4-6 P. M.—Reception by the New York state society.

8:30 P. M.—Entertainment and informal dance at invitation of the New York state society.

Tuesday, September 19

10 A. M.—Business session: addresses of welcome by the mayor of the city and president of the Merchants Association. Reply by president of New York State Society of Certified Public Accountants. Presentation of credentials, addresses and reports.

8 P. M.—Theatre party at invitation of New York state society.

Wednesday, September 20

10 A. M.—Business session.

2:30 P. M.—Business session.

3 P. M.—Boat trip around Manhattan Island for ladies and others who can participate.

Thursday, September 21

10 A. M.—Closing business session: induction of newly elected officers.

2:30 P. M.—Meeting of the board of trustees.

7 P. M.—Annual banquet—toast-master, Harvey S. Chase.

Midnight—Entertainment at invitation of Accountants' Round Table.

Friday, September 22

Outing, to be conducted by the New York state society.

Income Tax Department

EDITED BY JOHN B. NIVEN, C.P.A.

The proposals of the government for the amendment of the income tax law of 1913 have now been presented to congress. Numerous changes are suggested both in the basis of the tax and in its incidence. The inconsistencies and inequalities which became apparent in the administration of the present law during the past two and a half years are in some cases corrected. But the most important of all the changes proposed is the re-statement in form of the whole law which the bill contains, whereby the provisions are divided into parts and sections—with each division dealing with a separate subject and containing all the provisions relating to that subject—and thus providing congress with the means of giving a properly classified and co-ordinated statutory enactment and scheme of operation.

At the present writing, the bill is before the senate, and of necessity its final form is not available for this month's JOURNAL. No doubt it will be amended in some detail, but it is improbable that the form or the general provisions will be changed in any material respect. It has been thought better, therefore, to print the bill in this month's JOURNAL as originally presented, and to give in the subsequent month the amendments made thereon. The bill reads as follows:

A BILL TO INCREASE THE REVENUE, AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I.—INCOME TAX

PART I.—ON INDIVIDUALS

SEC. 1. (a) That there shall be levied, assessed, collected, and paid annually upon the entire net income received in the preceding calendar year from all sources by every individual, a citizen or resident of the United States, a tax of two per centum upon such income; and a like tax shall be levied, assessed, collected, and paid annually upon the entire net income received in the preceding calendar year from all sources within the United States by every individual, a nonresident alien, including interest on bonds, notes, or other interest-bearing obligations of residents, corporate or otherwise.

(b) In addition to the income tax imposed by subdivision (a) of this section (herein referred to as the normal tax) there shall be levied, assessed, collected and paid upon the total net income of every individual, or, in the case of a nonresident alien, the total net income received from all sources within the United States, an additional income tax (herein referred to as the additional tax) of one per centum per annum upon the amount by which such total net income exceeds $20,000 and does not exceed $40,000, two per centum per annum upon the amount by which such total net income exceeds $40,000 and does not exceed $60,000, three per centum per annum upon the amount by which such total net income exceeds $60,000 and does not exceed $80,000, four per centum per annum

upon the amount by which such total net income exceeds $80,000 and does not exceed $100,000, five per centum per annum upon the amount by which such total net income exceeds $100,000 and does not exceed $150,000, six per centum per annum upon the amount by which such total net income exceeds $150,000 and does not exceed $200,000, seven per centum per annum upon the amount by which such total net income exceeds $200,000 and does not exceed $250,000, eight per centum per annum upon the amount by which such total net income exceeds $250,000 and does not exceed $300,000, nine per centum per annum upon the amount by which such total net income exceeds $300,000 and does not exceed $500,000, and ten per centum per annum upon the amount by which such total net income exceeds $500,000.

For the purpose of the additional tax there shall be included as income dividends on the capital stock or from the net earnings of any corporation, joint-stock company or association, or insurance company, except that in the case of nonresident aliens such income derived from sources without the United States shall not be included.

All the provisions of this title relating to the normal tax on individuals, so far as they are applicable and are not inconsistent with this subdivision and section three, shall apply to the imposition, levy, assessment, and collection of the additional tax imposed under this subdivision.

(c) The foregoing normal and additional tax rates shall apply to the entire net income, except as hereinafter provided, received by every taxable person in the calendar year nineteen hundred and sixteen and in each year thereafter.

Income defined

SEC. 2. (a) That, subject only to such exemptions and deductions as are hereinafter allowed, the net income of a taxable person shall include gains, profits, and income derived from salaries, wages, or compensation for personal service of whatever kind and in whatever form paid, or from professions, vocations, businesses, trade, commerce, or sales, or dealings in property, whether real or personal, growing out of the ownership or use of or interest in real or personal property, also from interest, rent, dividends, securities, or the transaction of any business carried on for gain or profit, or gains or profits and income derived from any source whatever: *provided,* that the term "dividends" as used in this title shall be held to mean any distribution made or ordered to be made by a corporation out of its earnings or profits and payable to its shareholders, whether in cash or in stock of the corporation.

(b) Income received by estates of deceased persons during the period of administration or settlement of the estate, shall be subject to the normal and additional tax and taxed to their estates, and also income of estates or any kind of property held in trust, including income accumulated in trust for the benefit of unborn or unascertained persons, or persons with contingent interests, shall be likewise taxed, the tax in each instance to be assessed to the executor, administrator, or trustee, as the case may be.

Such trustees, executors, administrators, and other fiduciaries are hereby indemnified against the claims or demands of every beneficiary for all payments of taxes which they shall be required to make under the provisions of this title, and they shall have credit for the amount of such payments against the beneficiary or principal in any accounting which they may make as such trustees or other fiduciaries.

(c) Of the gain derived or loss sustained from the sale of real estate, stocks, bonds, securities or other property, acquired before March first, nineteen hundred and thirteen, not bought and sold in the course of trade by the taxpayer, only such proportion shall be included as the

time between March first, nineteen hundred and thirteen, and the date of sale bears to the entire time between the date of acquisition and the date of sale.

Additional tax includes undistributed profits

SEC. 3. For the purpose of the additional tax, the taxable income of any individual shall include the share to which he would be entitled of the gains and profits, if divided or distributed, whether divided or distributed or not, of all corporations, joint-stock companies or associations, or insurance companies, however created or organized, formed or fraudulently availed of for the purpose of preventing the imposition of such tax through the medium of permitting such gains and profits to accumulate instead of being divided or distributed; and the fact that any such corporation, joint-stock company or association, or insurance company, is a mere holding company, or that the gains and profits are permitted to accumulate beyond the reasonable needs of the business, shall be prima facie evidence of a fraudulent purpose to escape such tax; but the fact that the gains and profits are in any case permitted to accumulate and become surplus shall not be construed as evidence of a purpose to escape the said tax in such case unless the secretary of the treasury shall certify that in his opinion such accumulation is unreasonable for the purposes of the business. When requested by the commissioner of internal revenue, or any district collector of internal revenue, such corporation, joint-stock company or association, or insurance company shall forward to him a correct statement of such gains and profits and the names of the individuals who would be entitled to the same if divided or distributed.

Income exempt from law

SEC. 4. The following income shall be exempt from the provisions of this title:

The proceeds of life insurance policies paid to individual beneficiaries upon the death of the insured; the amount received by the insured, as a return of premium or premiums paid by him under life insurance, endowment, or annuity contracts, either during the term or at the maturity of the term mentioned in the contract or upon the surrender of the contract; the value of specific property acquired by gift, bequest, devise, or descent (but the income from such property shall be included as income); interest upon the obligations of a state or any political subdivision thereof or upon the obligations of the United States or its possessions; the compensation of the present president of the United States during the term for which he has been elected, and the judges of the supreme and inferior courts of the United States now in office, and the compensation of all officers and employees of a state, or any political subdivision thereof, except when such compensation is paid by the United States government.

Deductions allowed

SEC. 5. That in computing net income in the case of a citizen or resident of the United States—

(a) For the purpose of the tax there shall be allowed as deductions—

First. The necessary expenses actually paid in carrying on any business or trade, not including personal, living or family expenses.

Second. All interest paid within the year on his indebtedness.

Third. Taxes paid within the year imposed by the authority of the United States, or its territories, or possessions, or any foreign country, and any state, county, school, or municipal taxes, not including those assessed against local benefits.

Fourth. Losses actually sustained during the year, incurred in business or trade, or arising from fires, storms, shipwreck, or other casualty, and from theft, when not compensated for by insurance or otherwise.

Fifth. In transactions entered into for profit but not connected with his business or trade, the losses actually sustained therein during the year to an amount not exceeding the profits arising therefrom.

Sixth. Debts due to the taxpayer actually ascertained to be worthless and charged off within the year.

Seventh. A reasonable allowance for the exhaustion, wear and tear of property arising out of its use or employment in the business or trade; and in the case of mines, including oil wells or gas wells, a reasonable allowance for depletion of ores and of other natural deposits, not to exceed five per centum of the gross value at the mine of the output for the year for which the computation is made; and in the case of timber, a reasonable allowance for stumpage not in excess of the cost of, or capital actually invested in, the timber sold or removed during the year for which the return is made: *provided*, that no deduction shall be allowed for any amount paid out for new buildings, permanent improvements, or betterments, made to increase the value of any property or estate, and no deduction shall be made for any amount of expense of restoring property or making good the exhaustion thereof for which an allowance is or has been made.

Credits allowed

(b) For the purpose of the normal tax only, the income embraced in a personal return shall be credited with the amount received as dividends upon the stock or from the net earnings of any corporation, joint-stock company or association, or insurance company, which is taxable upon its net income as hereinafter provided.

(c) A like credit shall be allowed as to the amount of income, the normal tax upon which has been paid or withheld for payment at the source of the income under the provisions of this title.

Nonresident aliens

SEC. 6. That in computing net income in the case of a nonresident alien—

(a) For the purpose of the tax there shall be allowed as deductions—

First. The necessary expenses actually paid in carrying on any business or trade conducted by him within the United States, not including personal, living or family expenses.

Second. The proportion of all interest paid within the year by such person on his indebtedness which the gross amount of his income for the year derived from sources within the United States bears to the gross amount of his income for the year derived from all sources within and without the United States, but this deduction shall be allowed only if such person includes in the return required by section eight all the information necessary for its calculation.

Third. Taxes paid within the year imposed by the authority of the United States, or its territories, or possessions, and any state, county, school, or municipal taxes, paid within the United States, not including those assessed against local benefits.

Fourth. Losses actually sustained during the year, incurred in business or trade conducted by him within the United States, and losses of property within the United States arising from fires, storms, shipwreck, or other casualty, and from theft, when not compensated for by insurance or otherwise.

Fifth. Debts arising in the course of business or trade conducted by him within the United States due to the taxpayer actually ascertained to be worthless and charged off within the year.

Sixth. A reasonable allowance for the exhaustion, wear and tear of property within the United States arising out of its use or employment in the business or trade; and in the case of mines within the United States, including oil wells or gas wells, a reasonable allowance for depletion of ores and of other natural deposits, not to exceed five per centum of the gross value at the mine of the output for the year for which the computation is made; and in the case of timber within the United States, a reasonable allowance for stumpage not in excess of the cost of, or capital actually invested in, the timber sold or removed during the year for which the return is made: *provided,* that no deduction shall be allowed for any amount paid out for new buildings, permanent improvements, or betterments, made to increase the value of any property or estate, and no deduction shall be made for any amount of expense of restoring property or making good the exhaustion thereof for which an allowance is or has been made.

(b) There shall also be allowed the credits specified by subdivisions (b) and (c) of section five.

Personal exemption

SEC. 7. (a) That for the purpose of the normal tax only, there shall be allowed as an exemption in the nature of a deduction from the amount of the net income of each individual taxpayer, the sum of $3,000; except where such person is the head of a family, when the said exemption shall be $4,000: *provided,* that the aggregate net income of all the members of any family, composed of one or both parents and one or more minor children, or of husband and wife living together, shall, for the purpose of the normal tax only, constitute one taxable income to be returned by, and taxed to, the husband or the head of said family, and the tax thereon shall be payable by such husband, or head of the family, but if not paid by him may be enforced against any person whose income is included in the assessment; but the member of the family who pays the tax shall have the legal right of reimbursement against each other member of the family in the proportion that the net income of such other member bears to the combined net income: *provided further,* that the wife may elect to make an independent return of income derived from her separate estate, in which case she shall be entitled to an exemption of $2,000, and the husband to an exemption of $2,000; but the total exemption to husband, wife, and minor children living together shall in no case exceed $4,000: *provided further,* that guardians or trustees shall be allowed to make this personal exemption as to income derived from the property of which such guardian or trustee has charge in favor of each ward or cestui que trust; *provided further,* that in no event shall a ward or cestui que trust be allowed a greater personal exemption than $3,000 or $4,000, as provided in this paragraph, from the amount of net income received from all sources.

(b) A nonresident alien individual may receive the benefit of the exemption provided for in this section only by filing or causing to be filed with the collector of internal revenue a true and accurate return of his total income, received from all sources, corporate or otherwise, in the United States, in the manner prescribed by this title; and in case of his failure to file such return the collector shall collect the tax on such income, and all property belonging to such nonresident alien individual shall be liable to distraint for the tax.

Returns

SEC. 8. (a) The tax shall be computed upon the net income, as thus ascertained, of each person subject thereto, received in each preceding calendar year ending December thirty-first.

(b) On or before the first day of March, nineteen hundred and seventeen, and the first day of March in each year thereafter, a true and accurate return under oath shall be made by each person of lawful age, except as hereinafter provided, having a net income of $3,000 or over for the taxable year to the collector of internal revenue for the district in which such person has legal residence, or, in the case of a person residing in a foreign country, in the place where his legal residence or principal business is carried on within the United States, or if there be no legal residence or place of business in the United States, then with the collector of internal revenue at Baltimore, Maryland, in such form as the commissioner of internal revenue, with the approval of the secretary of the treasury, shall prescribe, setting forth specifically the gross amount of income from all separate sources, and from the total thereof deducting the aggregate items of allowances herein authorized: *provided*, that the commissioner of internal revenue shall have authority to grant a reasonable extension of time in meritorious cases, for filing returns of income by persons residing or travelling abroad who are required to make and file returns of income and who are unable to file said returns on or before March first of each year: *provided further*, that the aforesaid return may be made by an agent when by reason of illness, absence, or nonresidence the person liable for said return is unable to make and render the same, the agent assuming the responsibility of making the return and incurring penalties provided for erroneous, false, or fraudulent return.

(c) Guardians, trustees, executors, administrators, receivers, conservators, and all persons, corporations, or associations acting in any fiduciary capacity, shall make and render a return of the income of the person, trust, or estate for whom or which they act, and be subject to all the provisions of this title which apply to individuals. Such fiduciary shall make oath that he has sufficient knowledge of the affairs of such person, trust, or estate to enable him to make such return and that the same is true and correct, and be subject to all the provisions of this title which apply to individuals: *provided*, that a return made by one of two or more joint fiduciaries filed in the district where such fiduciary resides, under such regulations as the secretary of the treasury may prescribe, shall be a sufficient compliance with the requirements of this paragraph.

(d) All persons, firms, companies, copartnerships, corporations, joint-stock companies, or associations, and insurance companies, except as hereinafter provided, in whatever capacity acting, having the control, receipt, disposal, or payment of fixed or determinable annual or periodical gains, profits, and income of another individual subject to tax, shall in behalf of such person deduct and withhold from the payment an amount equivalent to the normal tax upon the same and make and render a return, as aforesaid, but separate and distinct, of the portion of the income of each person from which the normal tax has been thus withheld, and containing also the name and address of such person or stating that the name and address or the address, as the case may be, are unknown: *provided*, that the provision requiring the normal tax of individuals to be deducted and withheld at the source of the income shall not be construed to require the withholding of such tax according to the two per centum normal tax rate herein prescribed until on and after January first, nineteen hundred and seventeen, and the law existing at the time of the passage of this act shall govern the amount withheld or to be withheld at the source until January first, nineteen hundred and seventeen.

That in either case mentioned in subdivisions (c) and (d) of this section no return of income not exceeding $3,000 shall be required, except in the case of estates or trusts, not entitled to any exemption and except as hereinafter provided.

(e) Persons carrying on business in partnership shall be liable for income tax only in their individual capacity, and the share of the profits of a partnership to which any taxable partner would be entitled if the same were divided, whether divided or otherwise, shall be returned for taxation and the tax paid, under the provisions of this title, and any such partnership, when requested by the commissioner of internal revenue, or any district collector, shall render a correct return of the earnings, profits, and income of the partnership, setting forth the items of gross income and the deductions allowed by this title, and the names of the individuals who would be entitled to the net earnings, profits, and income, if distributed.

(f) In every return shall be included the income derived from dividends on the capital stock or from the net earnings of any corporation, joint-stock company or association, or insurance company, except that in the case of nonresident aliens such income derived from sources without the United States shall not be included.

(g) The collector or deputy collector shall require every return to be verified by the oath of the party rendering it. If the collector or deputy collector have reason to believe that the amount of any income returned is understated, he shall give due notice to the person making the return to show cause why the amount of the return should not be increased, and upon proof of the amount understated may increase the same accordingly.

Such person may furnish sworn testimony to prove any relevant facts and, if dissatisfied with the decision of the collector, may appeal to the commissioner of internal revenue for his decision under such rules of procedure as may be prescribed by regulations.

(h) An individual keeping accounts upon any basis other than that of actual receipts and disbursements, unless the commissioner of internal revenue finds that such other basis does not clearly reflect his income, may, subject to regulations made by such commissioner, with the approval of the secretary of the treasury, make his return upon the basis upon which his accounts are kept, in which case the tax shall be computed upon his income as so returned.

Assessment and administration

SEC. 9 (a) That all assessments shall be made by the commissioner of internal revenue and all persons shall be notified of the amount for which they are respectively liable on or before the first day of June of each successive year, and said amounts shall be paid on or before the fifteenth day of June, except in cases of refusal or neglect to make such return and in cases of erroneous, false, or fraudulent returns, in which cases the commissioner of internal revenue shall, upon the discovery thereof, at any time within three years after said return is due, or return made is found to be erroneous, false, or fraudulent, make a return upon information obtained as provided for in this title or by existing law, or require the necessary corrections to be made, and the assessment made by the commissioner of internal revenue thereon shall be paid by such person or persons immediately upon notification of the amount of such assessment; and to any sum or sums due and unpaid after the fifteenth day of June in any year, and for ten days after notice and demand thereof by the collector, there shall be added the sum of five per centum on the amount of tax unpaid, and interest at the rate of one per centum per month upon said tax from the time the same became due, except from the estates of insane, deceased, or insolvent persons.

(b) All persons, firms, copartnerships, companies, corporations, joint-stock companies, or associations, and insurance companies, in whatever capacity acting, including lessees or mortgagors of real or personal property, trustees acting in any trust capacity, executors, administrators, receivers, conservators, employers, and all officers and employees of the

United States having the control, receipt, custody, disposal, or payment of interest, rent, salaries, wages, premiums, annuities, compensation, remuneration, emoluments, or other fixed or determinable annual or periodical gains, profits, and income of another person, exceeding $3,000 for any taxable year, other than income derived from dividends on capital stock, or from the net earnings of corporations and joint-stock companies or associations, or insurance companies, the income of which is taxable under this title, who are required to make and render a return in behalf of another, as provided herein, to the collector of his, her, or its district, are hereby authorized and required to deduct and withhold from such annual or periodical gains, profits, and income such sum as will be sufficient to pay the normal tax imposed thereon by this title, and shall pay the amount withheld to the officer of the United States government authorized to receive the same; and they are each hereby made personally liable for such tax, and they are each hereby indemnified against every person, corporation, association, or demand whatsoever for all payments which they shall make in pursuance and by virtue of this title.

In all cases where the income tax of a person is withheld and deducted and paid or to be paid at the source, such person shall not receive the benefit of the personal exemption allowed in section seven of this title except by an application for refund of the tax unless he shall, not less than thirty days prior to the day on which the return of his income is due, file with the person who is required to withhold and pay tax for him a signed notice in writing claiming the benefit of such exemption, and thereupon no tax shall be withheld upon the amount of such exemption: *provided,* that if any person for the purpose of obtaining any allowance or reduction by virtue of a claim for such exemption, either for himself or for any other person, knowingly makes any false statement or false or fraudulent representation, he shall be liable to a penalty of $300.

And where the income tax is paid or to be paid at the source, no person shall be allowed the benefit of any deduction provided for in sections five or six of this title unless he shall, not less than thirty days prior to the day on which the return of his income is due, either (1) file with the person who is required to withhold and pay tax for him a true and correct return of his gains, profits, and income from all other sources, and also the deductions asked for, and the showing thus made shall then become a part of the return to be made in his behalf by the person required to withhold and pay the tax, or (2) likewise make application for deductions to the collector of the district in which return is made or to be made for him: *provided,* that when any amount allowable as a deduction is known at the time of receipt of fixed annual or periodical income by an individual subject to tax, he may file with the person, firm, or corporation making the payment a certificate, under penalty for false claim, and in such form as shall be prescribed by the commissioner of internal revenue, stating the amount of such deduction and making a claim for an allowance of the same against the amount of tax otherwise required to be deducted and withheld at the source of the income, and such certificate shall likewise become a part of the return to be made in his behalf.

If such person is absent from the United States, or is unable owing to serious illness to make the return and application above provided for, the return and application may be made by an agent, he making oath that he has sufficient knowledge of the affairs and property of his principal to enable him to make a full and complete return, and that the return and application made by him are full and complete.

(c) The amount of the normal tax hereinbefore imposed shall be deducted and withheld from fixed or determinable annual or periodical gains, profits and income derived from interest upon bonds and mort-

gages, or deeds of trust or other similar obligations of corporations, joint-stock companies, associations, and insurance companies, whether payable annually or at shorter or longer periods, although such interest does not amount to $3,000, subject to the provisions of this title requiring the tax to be withheld at the source and deducted from annual income and returned and paid to the government.

(d) And likewise the amount of such tax shall be deducted and withheld from coupons, cheques or bills of exchange for or in payment of interest upon bonds of foreign countries and upon foreign mortgages or like obligations (not payable in the United States), and also from coupons, cheques or bills of exchange for or in payment of any dividends upon the stock or interest upon the obligations of foreign corporations, associations and insurance companies engaged in business in foreign countries.

And the tax in such cases shall be withheld, deducted, and returned for and in behalf of any person subject to the tax hereinbefore imposed, although such interest or dividends do not exceed $3,000, by (1) any banker or person who shall sell or otherwise realize coupons, cheques or bills of exchange drawn or made in payment of any such interest or dividends (not payable in the United States), and (2) any person who shall obtain payment (not in the United States), in behalf of another of such dividends and interest by means of coupons, cheques, or bills of exchange, and also (3) any dealer in such coupons who shall purchase the same for any such dividends or interest (not payable in the United States), otherwise than from a banker or another dealer in such coupons.

(e) Where the tax is withheld at the source, the benefit of the exemption and the deductions allowable under this title may be had by complying with the foregoing provisions of this section.

(f) All persons, firms, or corporations undertaking as a matter of business or for profit the collection of foreign payments of such interest or dividends by means of coupons, cheques or bills of exchange shall obtain a licence from the commissioner of internal revenue, and shall be subject to such regulations enabling the government to ascertain and verify the due withholding and payment of the income tax required to be withheld and paid as the commissioner of internal revenue, with the approval of the secretary of the treasury, shall prescribe; and any person who shall knowingly undertake to collect such payments as aforesaid without having obtained a licence therefor, or without complying with such regulations, shall be deemed guilty of a misdemeanor and for each offense be fined in a sum not exceeding $5,000, or imprisoned for a term not exceeding one year, or both, in the discretion of the court.

(g) The tax herein imposed upon gains, profits, and income not falling under the foregoing and not returned and paid by virtue of the foregoing shall be assessed by personal return under rules and regulations to be prescribed by the commissioner of internal revenue and approved by the secretary of the treasury. The intent and purpose of this title is that all gains, profits, and income of a taxable class, as defined by this title, shall be charged and assessed with the corresponding tax, normal and additional, prescribed by this title, and said tax shall be paid by the owner of such income, or the proper representative having the receipt, custody, control, or disposal of the same. For the purpose of this title ownership or liability shall be determined as of the year for which a return is required to be rendered.

The provisions of this title relating to the deduction and payment of the tax at the source of income shall only apply to the normal tax hereinbefore imposed upon individuals.

PART II.—ON CORPORATIONS

SEC. 10. That there shall be levied, assessed, collected, and paid annually upon the total net income received in the preceding calendar year from all sources by every corporation, joint-stock company or association, or insurance company, organized in the United States, no matter how created or organized but not including partnerships, a tax of two per centum upon such income; and a like tax shall be levied, assessed, collected, and paid annually upon the total net income received in the preceding calendar year from all sources within the United States by every corporation, joint-stock company or association, or insurance company organized, authorized, or existing under the laws of any foreign country, including interest on bonds, notes, or other interest-bearing obligations of residents, corporate or otherwise, and including the income derived from dividends on capital stock or from net earnings of resident corporations, joint-stock companies or associations, or insurance companies whose net income is taxable under this title.

The foregoing tax rate shall apply to the total net income received by every taxable corporation, joint-stock company or association, or insurance company in the calendar year nineteen hundred and sixteen and in each year thereafter, except that if it has fixed its own fiscal year under the provisions of existing law, the foregoing rate shall apply to the proportion of the total net income returned for the fiscal year ending prior to December thirty-first, nineteen hundred and sixteen, which the period between January first, nineteen hundred and sixteen, and the end of such fiscal year bears to the whole of such fiscal year, and the rate fixed in section II of the act approved October third, nineteen hundred and thirteen, entitled "An act to reduce tariff duties and to provide revenue for the government, and for other purposes," shall apply to the remaining portion of the total net income returned for such fiscal year.

Conditional and other exemptions

SEC. 11. (a) That there shall not be taxed under this title any income received by any—

First.—Labor, agricultural, or horticultural organization;

Second.—Mutual savings bank not having a capital stock represented by shares.

Third.—Fraternal beneficiary society, order, or association, operating under the lodge system or for the exclusive benefit of the members of a fraternity itself operating under the lodge system, and providing for the payment of life, sick, accident, or other benefits to the members of such society, order, or association or their dependents;

Fourth.—Domestic building and loan association;

Fifth.—Cemetery company owned and operated exclusively for the benefit of its members;

Sixth.—Corporation or association organized and operated exclusively for religious, charitable, scientific, or educational purposes, no part of the net income of which inures to the benefit of any private stockholder or individual;

Seventh.—Business league, chamber of commerce, or board of trade, not organized for profit and no part of the net income of which inures to the benefit of any private stockholder or individual;

Eighth.—Civic league or organization not organized for profit but operated exclusively for the promotion of social welfare;

Ninth.—Club organized and operated exclusively for pleasure, recreation and other nonprofitable purposes, no part of the net income of which inures to the benefit of any private stockholder or member;

Tenth.—Farmers' mutual hail, cyclone, or fire insurance company, mutual or co-operative telephone company, or like organization of a purely local character, the income of which consists solely of assessments,

dues, and fees collected from members for the sole purpose of meeting its expenses;

Eleventh.—Farmers', fruit growers', or like association, organized and operated as a sales agent for the purpose of marketing the products of its members and turning back to them the proceeds of sales, less the necessary selling expenses, on the basis of the quantity of produce furnished by them; or

Twelfth.—Corporation or association organized for the exclusive purpose of holding title to property, collecting income therefrom, and turning over the entire amount thereof, less expenses, to an organization which itself is exempt from the tax imposed by this title.

(b) There shall not be taxed under this title any income derived from any public utility or from the exercise of any essential governmental function accruing to any state, territory, or the District of Columbia, or any political subdivision of a state or territory, nor any income accruing to the government of the Philippine Islands or Porto Rico, or of any political subdivision of the Philippine Islands or Porto Rico: *provided*, that whenever any state, territory, or the District of Columbia, or any political subdivision of a state or territory, has, prior to the passage of this title, entered in good faith into a contract with any person or corporation, the object and purpose of which is to acquire, construct, operate or maintain a public utility, no tax shall be levied under the provisions of this title upon the income derived from the operation of such public utility, so far as the payment thereof will impose a loss or burden upon such state, territory, or the District of Columbia, or a political subdivision of a state or territory; but this provision is not intended to confer upon such person or corporation any financial gain or exemption or to relieve such person or corporation from the payment of a tax as provided for in this title upon the part or portion of the said income to which such person or corporation shall be entitled under such contract.

Deductions

SEC. 12. (a) In the case of a corporation, joint-stock company or association, or insurance company, organized in the United States, such net income shall be ascertained by deducting from the gross amount of its income received within the year from all sources—

First.—All the ordinary and necessary expenses paid within the year in the maintenance and operation of its business and properties, including rentals or other payments required to be made as a condition to the continued use or possession of property to which the corporation has not taken or is not taking title, or in which it has no equity.

Second.—All losses actually sustained within the year and not compensated by insurance or otherwise, including a reasonable allowance for the exhaustion, wear and tear of property arising out of its use or employment in the business or trade; and in the case of mines, including oil wells or gas wells, a reasonable allowance for depletion of ores and of other natural deposits, not to exceed five per centum of the gross value at the mine of the output for the year for which the computation is made; and in the case of timber, a reasonable allowance for stumpage not in excess of the cost of, or capital actually invested in, the timber sold or removed during the year for which the return is made: *provided*, that no deduction shall be allowed for any amount paid out for new buildings, permanent improvements, or betterments, made to increase the value of any property or estate, and no deduction shall be made for any amount of expense of restoring property or making good the exhaustion thereof for which an allowance is or has been made; and in case of insurance companies the net addition, if any, required by law to be made within the year to reserve funds and the sums other than

dividends paid within the year on policy and annuity contracts: *provided,* that mutual fire insurance companies requiring their members to make premium deposits to provide for losses and expenses shall not return as income any portion of the premium deposits returned to their policyholders, but shall return as taxable income all income received by them from all other sources plus such portions of the premium deposits as are retained by the companies for purposes other than the payment of losses and expenses and reinsurance reserves: *provided further,* that mutual marine insurance companies shall include in their return of gross income gross premiums collected and received by them less amounts paid for reinsurance, but shall be entitled to include in deductions from gross income amounts repaid to policyholders on account of premiums previously paid by them and interest paid upon such amounts between the ascertainment thereof and the payment thereof, and life insurance companies shall not include as income in any year such portion of any actual premium received from any individual policyholder as shall have been paid back or credited to such individual policyholder, or treated as an abatement of premium of such individual policyholder, within such year.

Third.—The amount of interest paid within the year on its indebtedness to an amount of such indebtedness not in excess of the sum of (a) the entire amount of the paid-up capital stock outstanding at the close of the year, or, if no capital stock, the entire amount of capital employed in the business at the close of the year, and (b) one-half of its interest-bearing indebtedness then outstanding: *provided,* that for the purpose of this title preferred capital stock shall not be considered interest-bearing indebtedness, and interest or dividends paid upon this stock shall not be deductible from gross income: *provided further,* that in cases wherein shares of capital stock are issued without par or nominal value, the amount of paid-up capital stock, within the meaning of this section, as represented by such shares, will be the amount of cash, or its equivalent, paid or transferred to the corporation as a consideration for such shares: *provided further,* that in the case of indebtedness wholly secured by personal property collateral, tangible or intangible, the subject of sale in the ordinary business of such corporation, joint-stock company or association as a dealer in the property constituting such collateral, the total interest paid by such corporation, company, or association within the year on any such indebtedness may be deducted as a part of its expenses of doing business, but interest on such indebtedness shall only be deductible on an amount of such indebtedness not in excess of the actual value of such personal property collateral: *provided further,* that in the case of bonds or other indebtedness, which have been issued with a guaranty that the interest payable thereon shall be free from taxation, no deduction for the payment of the tax herein imposed, or any other tax paid pursuant to such guaranty, shall be allowed; and in the case of a bank, banking association, loan or trust company, interest paid within the year on deposits or on moneys received for investment and secured by interest-bearing certificates of indebtedness issued by such bank, banking association, loan or trust company.

Fourth.—Taxes paid within the year imposed by the authority of the United States, or its territories or possessions, or any foreign country, and any state, county, school, or municipal taxes, not including those assessed against local benefits.

(b) In the case of a corporation, joint-stock company or association, or insurance company, organized, authorized, or existing under the laws of any foreign country, such net income shall be ascertained by deducting from the gross amount of its income received within the year from all sources within the United States—

First.—All the ordinary and necessary expenses actually paid within the year out of earnings in the maintenance and operation of its business

and property within the United States, including rentals or other payments required to be made as a condition to the continued use or possession of property to which the corporation has not taken or is not taking title, or in which it has no equity.

Second.—All losses actually sustained within the year in business or trade conducted by it within the United States and not compensated by insurance or otherwise, including a reasonable allowance for the exhaustion, wear and tear of property arising out of its use or employment in the business or trade; and in the case of mines, including oil wells and gas wells, a reasonable allowance for depletion of ores and of other natural deposits, not to exceed five per centum of the gross value at the mine of the output for the year for which the computation is made; and in the case of timber, a reasonable allowance for stumpage not in excess of the cost of, or capital actually invested in, the timber sold or removed during the year for which the return is made; *provided*, that no deduction shall be allowed for any amount paid out for new buildings, permanent improvements, or betterments, made to increase the value of any property or estate, and no deduction shall be made for any amount of expense of restoring property or making good the exhaustion thereof for which an allowance is or has been made; and in the case of insurance companies the net addition, if any, required by law to be made within the year to reserve funds and the sums other than dividends paid within the year on policy and annuity contracts: *provided further*, that mutual fire insurance companies requiring their members to make premium deposits to provide for losses and expenses shall not return as income any portion of the premium deposits returned to their policyholders, but shall return as taxable income all income received by them from all other sources plus such portions of the premium deposits as are retained by the companies for purposes other than the payment of losses and expenses and reinsurance reserves: *provided further*, that mutual marine insurance companies shall include in their return of gross income gross premiums collected and received by them less amounts paid for reinsurance, but shall be entitled to include in deductions from gross income amounts repaid to policyholders on account of premiums previously paid by them, and interest paid upon such amounts between the ascertainment thereof and the payment thereof, and life insurance companies shall not include as income in any year such portion of any actual premium received from any individual policyholder as shall have been paid back or credited to such individual policyholder, or treated as an abatement of premium of such individual policyholder, within such year.

Third.—The amount of interest paid within the year on its indebtedness to an amount of such indebtedness not in excess of the proportion of the sum of (a) the entire amount of the paid-up capital stock outstanding at the close of the year, or, if no capital stock, the entire amount of the capital employed in the business at the close of the year, and (b) one-half of its interest-bearing indebtedness then outstanding, which the gross amount of its income for the year from business transacted and capital invested within the United States bears to the gross amount of its income derived from all sources within and without the United States: *provided*, that in the case of bonds or other indebtedness which have been issued with a guaranty that the interest payable thereon shall be free from taxation, no deduction for the payment of the tax herein imposed shall be allowed; and in case of a bank, banking association, loan or trust company, or branch thereof, interest paid within the year on deposits by or on moneys received for investment from either citizens or residents of the United States and secured by interest-bearing certificates of indebtedness issued by such bank, banking association, loan or trust company, or branch thereof.

Fourth. Taxes paid within the year imposed by the authority of the United States, or its territories, or possessions, and any state, county, school or municipal taxes, paid within the United States, not including those assessed against local benefits.

(c) In the case of assessment insurance companies, whether domestic or foreign, the actual deposit of sums with state or territorial officers, pursuant to law, as additions to guarantee or reserve funds shall be treated as being payments required by law to reserve funds.

Returns

SEC. 13 (a) The tax shall be computed upon the net income, as thus ascertained, received within each preceding calendar year ending December thirty-first; *provided*, that any corporation, joint-stock company or association, or insurance company, subject to this tax may designate the last day of any month in the year as the day of the closing of its fiscal year and shall be entitled to have the tax payable by it computed upon the basis of the net income ascertained as herein provided for the year ending on the day so designated in the year preceding the date of assessment instead of upon the basis of the net income for the calendar year preceding the date of assessment; and it shall give notice of the day it has thus designated as the closing of its fiscal year to the collector of the district in which its principal business office is located at any time not less than thirty days prior to the first day of March of the year in which its return would be filed if made upon the basis of the calendar year.

(b) Every corporation, joint-stock company or association, or insurance company, subject to the tax herein imposed, shall, on or before the first day of March, nineteen hundred and seventeen, and the first day of March in each year thereafter, or, if it has designated a fiscal year for the computation of its tax, then within sixty days after the close of such fiscal year ending prior to December thirty-first, nineteen hundred and sixteen, and the close of each such fiscal year thereafter, render a true and accurate return of its annual net income in the manner and form to be prescribed by the commissioner of internal revenue, with the approval of the secretary of the treasury, and containing such facts, data, and information as are appropriate and in the opinion of the commissioner necessary to determine the correctness of the net income returned and to carry out the provisions of this title. The return shall be sworn to by the president, vice-president, or other principal officer, and by the treasurer or assistant treasurer. The return shall be made to the collector of the district in which is located the principal office of the corporation, company, or association, where are kept its books of account and other data from which the return is prepared, or in the case of a foreign corporation, company, or association, to the collector of the district in which is located its principal place of business in the United States. All such returns shall as received be transmitted forthwith by the collector to the commissioner of internal revenue.

(c) In cases wherein receivers, trustees in bankruptcy, or assignees are operating the property or business of corporations, joint-stock companies or associations, or insurance companies, subject to tax imposed by this title, such receivers, trustees, or assignees shall make returns of net income as and for such corporations, joint-stock companies or associations, and insurance companies, in the same manner and form as such organizations are hereinbefore required to make returns, and any income tax due on the basis of such returns made by receivers, trustees, or assignees shall be assessed and collected in the same manner as if assessed directly against the organizations of whose businesses or properties they have custody and control.

(d) A corporation, joint-stock company or association, or insurance company, keeping accounts upon any basis other than that of actual receipts and disbursements, unless the commissioner of internal revenue finds that such other basis does not clearly reflect its income, may, subject to regulations made by such commissioner, with the approval of the secretary of the treasury, make its return upon the basis upon which its accounts are kept, in which case the tax shall be computed upon its income as so returned.

Assessment and Administration

SEC. 14. (a) All assessments shall be made and the several corporations, joint-stock companies or associations, and insurance companies shall be notified of the amount for which they are respectively liable on or before the first day of June of each successive year, and said assessment shall be paid on or before the fifteenth day of June: *provided,* that every corporation, joint-stock company or association, and insurance company, computing taxes upon the income of the fiscal year which it may designate in the manner hereinbefore provided, shall pay the taxes due under its assessment within one hundred and five days after the date upon which it is required to file its list or return of income for assessment; except in cases of refusal or neglect to make such return, and in cases of erroneous, false or fraudulent returns, in which cases the commissioner of internal revenue shall, upon the discovery thereof, at any time within three years after said return is due, make a return upon information obtained as provided for in this title or by existing law; and the assessment made by the commissioner of internal revenue thereon shall be paid by such corporation, joint-stock company or association, or insurance company, immediately upon notification of the amount of such assessment; and to any sum or sums due and unpaid after the fifteenth day of June, in any year, or after one hundred and five days from the date on which the return of income is required to be made by the taxpayer, and after ten days' notice and demand thereof by the collector, there shall be added the sum of five per centum on the amount of tax unpaid and interest at the rate of one per centum per month upon said tax from the time the same becomes due.

(b) When the assessment shall be made, as provided in this title, the returns, together with any corrections thereof which may have been made by the commissioner, shall be filed in the office of the commissioner of internal revenue and shall constitute public records and be open to inspection as such: *provided,* that any and all such returns shall be open to inspection only upon the order of the president, under rules and regulations to be prescribed by the secretary of the treasury and approved by the president: *provided further,* that the proper officers of any state imposing a general income tax may, upon the request of the governor thereof, have access to said returns or to an abstract thereof, showing the name and income of each such corporation, joint-stock company or association, or insurance company, at such times and in such manner as the secretary of the treasury may prescribe.

(c) If any of the corporations, joint-stock companies or associations, or insurance companies aforesaid shall refuse or neglect to make a return at the time or times hereinbefore specified in each year, or shall render a false or fraudulent return, such corporation, joint-stock company or association, or insurance company shall be liable to a penalty of not exceeding $10,000.

PART III.—GENERAL ADMINISTRATIVE PROVISIONS.

SEC. 15. That the word "state" or "United States" when used in this title shall be construed to include any territory, the District of Columbia, Porto Rico, and the Philippine Islands when such construction is necessary to carry out its provisions.

SEC. 16. That sections thirty-one hundred and sixty-seven, thirty-one hundred and seventy-two, thirty-one hundred and seventy-three, and thirty-one hundred and seventy-six of the *Revised Statutes* of the United States as amended are hereby amended so as to read as follows:

"SEC. 3167. It shall be unlawful for any collector, deputy collector, agent, clerk, or other officer or employee of the United States to divulge or to make known in any manner whatever not provided by law to any person the operations, style of work, or apparatus of any manufacturer or producer visited by him in the discharge of his official duties, or the amount or source of income, profits, losses, expenditures, or any particular thereof, set forth or disclosed in any income return, or to permit any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; and it shall be unlawful for any person to print or publish in any manner whatever not provided by law any income return or any part thereof or the amount or source of income, profits, losses, or expenditures appearing in any income return; and any offense against the foregoing provision shall be a misdemeanor and be punished by a fine not exceeding $1,000 or by imprisonment not exceeding one year, or both, at the discretion of the court; and if the offender be an officer or employee of the United States he shall be dismissed from office or discharged from employment.

"SEC. 3172. Every collector shall, from time to time, cause his deputies to proceed through every part of his district and inquire after and concerning all persons therein who are liable to pay any internal-revenue tax, and all persons owning or having the care and management of any objects liable to pay any tax, and to make a list of such persons and enumerate said objects.

"SEC. 3173. It shall be the duty of any person, partnership, firm, association, or corporation, made liable to any duty, special tax, or other tax imposed by law, when not otherwise provided for, (1) in case of a special tax, on or before the thirty-first day of July in each year, (2) in case of income tax on or before the first day of March in each year, or on or before the last day of the sixty-day period next following the closing date of the fiscal year for which it makes a return of its income, and (3) in other cases before the day on which the taxes accrue, to make a list or return, verified by oath, to the collector or a deputy collector of the district where located, of the articles or objects, including the amount of annual income charged with a duty or tax, the quantity of goods, wares and merchandise, made or sold and charged with a tax, the several rates and aggregate amount, according to the forms and regulations to be prescribed by the commissioner of internal revenue, with the approval of the secretary of the treasury, for which such person, partnership, firm, association, or corporation is liable: *provided*, that if any person liable to pay any duty or tax, or owning, possessing, or having the care or management of property, goods, wares, and merchandise, articles or objects liable to pay any duty, tax, or licence, shall fail to make and exhibit a list or return required by law, but shall consent to disclose the particulars of any and all the property, goods, wares, and merchandise, articles, and objects liable to pay any duty or tax, or any business or occupation liable to pay any tax as aforesaid, then, and in that case, it shall be the duty of the collector or deputy collector to make such list or return, which, being distinctly read, consented to, and signed and verified by oath by the person so owning, possessing, or having the care and management as aforesaid, may be received as the list of such person: *provided further*, that in case no annual list or return has been rendered by such person to the collector or deputy collector as required by law, and the person shall be absent from his or her residence or place of business at the time the collector or a deputy collector shall call for the annual

list or return, it shall be the duty of such collector or deputy collector to leave at such place of residence or business, with some one of suitable age and discretion, if such be present, otherwise to deposit in the nearest post office, a note or memorandum addressed to such person, requiring him or her to render to such collector or deputy collector the list or return required by law within ten days from the date of such note or memorandum, verified by oath. And if any person, on being notified or required as aforesaid, shall refuse or neglect to render such list or return within the time required as aforesaid, or whenever any person who is required to deliver a monthly or other return of objects subject to tax fails to do so at the time required, or delivers any return which, in the opinion of the collector, is erroneous, false, or fraudulent, or contains any undervaluation or understatement, or refuses to allow any regularly authorized government officer to examine the books of such person, firm, or corporation, it shall be lawful for the collector to summon such person, or any other person having possession, custody, or care of books of account containing entries relating to the business of such person, or any other person he may deem proper, to appear before him and produce such books at a time and place named in the summons, and to give testimony or answer interrogatories, under oath, respecting any objects or income liable to tax or the returns thereof. The collector may summon any person residing or found within the state or territory in which his district lies; and when the person intended to be summoned does not reside and can not be found within such state or territory, he may enter any collection district where such person may be found and there make the examination herein authorized. And to this end he may there exercise all the authority which he might lawfully exercise in the district for which he was commissioned: *provided*, that 'person,' as used in this section, shall be construed to include any corporation, joint-stock company or association, or insurance company when such construction is necessary to carry out its provisions.

"SEC. 3176. If any person, corporation, company, or association fails to make and file a return or list at the time prescribed by law, or makes, wilfully or otherwise, a false or fraudulent return or list, the collector or deputy collector shall make the return or list from his own knowledge and from such information as he can obtain through testimony or otherwise. Any return or list so made and subscribed by a collector or deputy collector shall be prima facie good and sufficient for all legal purposes.

"If the failure to file a return or list is due to sickness or absence the collector may allow such further time, not exceeding thirty days, for making and filing the return or list as he deems necessary.

"The commissioner of internal revenue shall assess all taxes, other than stamp taxes, as to which returns or lists are so made by a collector or deputy collector. In case of any failure to make and file a return or list within the time prescribed by law or by the collector, the commissioner of internal revenue shall add to the tax fifty per centum of its amount except that, when a return is voluntarily and without notice from the collector filed after such time and it is shown that the failure to file it was due to a reasonable cause and not to wilful neglect, no such addition shall be made to the tax. In case a false or fraudulent return or list is wilfully made, the commissioner of internal revenue shall add to the tax one hundred per centum of its amount.

"The amount so added to any tax shall be collected at the same time and in the same manner and as part of the tax unless the tax has been paid before the discovery of the neglect, falsity, or fraud, in which case the amount so added shall be collected in the same manner as the tax."

SEC. 17. That it shall be the duty of every collector of internal revenue, to whom any payment of any taxes is made under the provisions of this title, to give to the person making such payment a full written or printed receipt, expressing the amount paid and the particular account for which such payment was made; and whenever such payment is made such collector shall, if required, give a separate receipt for each tax paid by any debtor, on account of payments made to or to be made by him to separate creditors in such form that such debtor can conveniently produce the same separately to his several creditors in satisfaction of their respective demands to the amounts specified in such receipts; and such receipts shall be sufficient evidence in favor of such debtor to justify him in withholding the amount therein expressed from his next payment to his creditor; but such creditor may, upon giving to his debtor a full written receipt, acknowledging the payment to him of whatever sum may be actually paid, and accepting the amount of tax paid as aforesaid (specifying the same) as a further satisfaction of the debt to that amount, require the surrender to him of such collector's receipt.

SEC. 18. That if any individual liable to make the return or pay the tax aforesaid shall refuse or neglect to make such return at the time or times hereinbefore specified in each year, he shall be liable to a penalty of not less than $20 nor more than $1,000. Any individual or any officer of any corporation, joint-stock company or association, or insurance company required by law to make, render, sign, or verify any return who makes any false or fraudulent return or statement with intent to defeat or evade the assessment required by this title to be made shall be guilty of a misdemeanor, and shall be fined not exceeding $2,000 or be imprisoned not exceeding one year, or both, in the discretion of the court, with the costs of prosecution.

SEC. 19. That jurisdiction is hereby conferred upon the district courts of the United States for the district within which any person summoned under this title to appear to testify or to produce books shall reside, to compel such attendance, production of books, and testimony by appropriate process.

SEC. 20. That the preparation and publication of statistics reasonably available with respect to the operation of the income tax law and containing classifications of taxpayers and of income, the amounts allowed as deductions and exemptions, and any other facts deemed pertinent and valuable, shall be made annually by the commissioner of internal revenue with the approval of the secretary of the treasury.

SEC. 21. That all administrative, special, and general provisions of law, including the laws in relation to the assessment, remission, collection, and refund of internal-revenue taxes not heretofore specifically repealed and not inconsistent with the provisions of this title, are hereby extended and made applicable to all the provisions of this title and to the tax herein imposed.

SEC. 22. That the provisions of this title shall extend to Porto Rico and the Philippine Islands: *provided,* that the administration of the law and the collection of the taxes imposed in Porto Rico and the Philippine Islands shall be by the appropriate internal-revenue officers of those governments, and all revenues collected in Porto Rico and the Philippine Islands thereunder shall accrue intact to the general governments thereof, respectively: *provided further,* that the jurisdiction in this title conferred upon the district courts of the United States shall, so far as the Philippine Islands are concerned, be vested in the courts of the first instance of said islands: *and provided further,* that nothing in this title shall be held to exclude from the computation of the net income the compensation paid any official by the governments of the District of Columbia, Porto Rico, and the Philippine Islands, or the political subdivisions thereof.

SEC. 23. That section II of the act approved October third, nineteen hundred and thirteen, entitled "An act to reduce tariff duties and to provide revenue for the government, and for other purposes," is hereby repealed, except as herein otherwise provided, and except that it shall remain in force for the assessment and collection of all taxes which have accrued thereunder, and for the imposition and collection of all penalties or forfeitures which have accrued or may accrue in relation to any of such taxes, and except that the unexpended balance of any appropriation heretofore made and now available for the administration of such section or any provision thereof shall be available for the administration of this title or the corresponding provision thereof.

SEC. 24. That income on which has been assessed the tax imposed by section II of the act entitled "An act to reduce tariff duties and to provide revenue for the government, and for other purposes," approved October third, nineteen hundred and thirteen, shall not be considered as income within the meaning of this title.

Students' Department

EDITED BY SEYMOUR WALTON, C.P.A.

BILLS OF LADING

Commerce has been defined as the process of moving commodities from the original producer to the ultimate consumer. In this process one of the most important factors is the bill of lading.

A bill of lading is the written receipt by a carrier for goods delivered to the carrier for transportation and an agreement to transport and deliver them to a person named therein or to his order. It is signed by an agent of the owner of the vessel, railroad or other transportation agency.

A bill of lading stating that the goods are consigned to a specified person is called a straight bill. A bill stating that goods are consigned to the order of the person named in it is called an order bill.

The responsibility of a carrier for goods shipped on a straight bill ceases when it has delivered the goods to the person named in the bill. Its only concern is to make sure that all carriage charges are paid or secured.

When goods are shipped on an order bill they cannot be delivered until the bill of lading, properly endorsed by the consignee, is surrendered to the carrier. If the original consignee has endorsed the bill to the order of some other person, the goods must be delivered to the endorsee on surrender of the bill. The straight bill is not negotiable, but the order bill is a quasi-negotiable instrument. If the carrier delivers goods shipped on an order bill to the consignee without requiring the surrender of the bill of lading properly endorsed, it is liable to the holder of the order bill for the value of the goods.

It is the negotiable feature of the order bill that gives it importance in commercial transactions. It is in constant use in foreign shipments and will become much more common in domestic trade than it has been heretofore when the use of trade acceptances becomes general, as is contemplated by our new banking laws.

As an illustration of the way in which it may be used, we will suppose that a merchant in Omaha wishes to buy a large bill of goods from a house in New York, agreeing to accept a bill of exchange drawn at 90 days sight. If the credit of the Omaha merchant is high enough, the goods may be shipped on a straight bill and will be delivered to the merchant as soon as they arrive in Omaha. The New York concern has then extended an unsecured credit to the Omaha merchant for the amount of the bill. If the latter's standing is not good enough for this credit the New York concern may ship the goods on a bill of lading drawn to the order of the Omaha merchant. This bill of lading is attached to the

bill of exchange and remains with it when it is accepted. The acceptor cannot obtain possession of the goods until he is in possession of the bill of lading and he cannot obtain the bill of lading until he pays the acceptance or makes some arrangement guaranteeing the payment to the holder of the acceptance. This arrangement he must make with his local bank, to which he has requested that the acceptance be sent for collection. He endorses the bill of lading to the order of the bank, which is then able to obtain the goods and hold them in trust for the owner of the acceptance. The bank may then allow him to withdraw all or part of the goods by obligating itself to pay the value of the goods withdrawn to the holder of the acceptance when the latter becomes due. The New York shipper is thus protected either by retaining virtual possession of the goods, or by receiving the guarantee of a bank in addition to the name of the Omaha merchant as acceptor of the bill of exchange.

As was stated in treating of the trade acceptance, the best method for the Omaha merchant to adopt would be to arrange for the New York shipper to draw directly on the bank, which is authorized by the new law to accept time drafts. The bill of lading would then be made to the order of the bank, enabling it to obtain possession of the goods at once. When it would deliver all or part of them to the merchant would depend on the arrangement between them.

Under our peculiar system of government there are forty-eight states whose separate laws apply to bills of lading. A shipper, in order to protect himself, must know the law of the state into which his goods are going in regard to the delivery of an order bill attached to a time draft. It may be that the law will allow of delivery of the bill of lading, and therefore of the goods, on acceptance of the draft. If the shipper does not know this, he may be relying on having the goods as security for the payment of the draft in case the acceptor fails. Decisions as to the liability of the carrier may vary in different states, so that the shipper may not know what he can depend on unless he acquaints himself with the law of each state into which he ships goods. There used to be a further difficulty arising from the fact that each carrier had its own form of bill of lading, but this is now done away with by the adoption by all common carriers of a uniform bill of lading.

To do away with the uncertainty arising from the different state laws, a bill has been introduced in congress by Senator Pomerene governing the issue of bills of lading in interstate or foreign commerce. If this bill becomes law, a shipper need only acquaint himself with its provisions and the law of his own state to know what his rights are in regard to any shipment he may make. This in itself would be a great advantage, but in addition the Pomerene bill throws around the bill of lading certain safeguards that are very important.

The uniform bill of lading contains a clause reading "contents and condition of contents of packages unknown." Under this clause a carrier that receipted for twenty barrels of wine would not be responsible if

five of the barrels were found on delivery to the consignee to be full of water unless it could be proved that the substitution of the water for the wine was made while in the possession of the carrier. The Pomerene bill provides that if a carrier's agent with actual or apparent authority to issue bills puts out a bill without receiving the goods, the carrier will be liable to the consignee, if it is a straight bill, and to the holder, if it is an order bill, in the event that they have given value in good faith.

When a consignee pays or accepts a draft drawn against a shipment of goods, he naturally wishes to be assured that he will receive the goods for which he has contracted. If he has bought the goods on open account, he does not finally obligate himself to pay for them until he has received, examined and accepted them. But since the draft will always be presented before the goods arrive the consignee would be running more or less of a risk in paying or accepting on the faith of a bill of lading which might or might not represent the goods.

It is objected that the Pomerene bill shifts the burden from the holder of the bill to the carrier, but it is on the carrier that the burden belongs. The carrier employs the agent and represents him to the public as duly authorized to issue the bills of lading. The agent is the agent of the carrier, not of the public, and if he is careless or abuses his trust his principal should suffer, not the public. The carrier runs little or no risk in accepting package goods from a responsible shipper, and in any event can protect itself by an examination of the goods or of enough of them to be satisfied that they are all correct. The merchant who accepts a draft on the faith of a bill of lading has no opportunity to inspect the goods and should therefore be protected by being furnished a bill of lading on which he can rely.

Section 22 of the Pomerene bill says that "if a bill of lading has been issued by a carrier or on his behalf by an agent or employee the scope of whose actual or apparent authority includes the receiving of goods and issuing bills of lading therefor for transportation in commerce among the several states and with foreign nations, the carrier shall be liable to (a) the owner of goods covered by a straight bill subject to existing right of stoppage *in transitu*, or (b) the holder of an order bill, who has given value in good faith, relying upon the description therein of the goods, for damages caused by the non-receipt by the carrier of all or part of the goods or their failure to correspond with the description thereof in the bill at the time of its issue."

The last clause of this section gives the same security to the holder of an order bill that is enjoyed by the holder of a warehouse receipt given as collateral for a loan or as the basis of a purchase. No one would advance money on a warehouse receipt that contained the clause "contents and condition of contents of packages unknown." There does not seem to be any good reason why any one should be asked to pay or accept a draft when the goods for which he is paying or engaging to pay are described in an equally indefinite way. The labor of identifying

the goods is no greater for the carrier than it is for the warehouseman. Even if the carrier is allowed to make a small charge for his trouble in identifying the goods, the shipper could well afford to pay it on account of the increased facility afforded him for negotiating the bill of lading.

There are conditions, however, under which it is next to impossible for the carrier to verify the goods. One of these occurs when the shipper loads the goods himself on a sidetrack running into his own premises. In order to verify a carload of goods loaded in this way, the carrier would either have to have its representative superintend the loading of the car or would have to unload the car when delivered to it and reload it. Either of these alternatives would be too expensive to be considered. To cover such conditions the Pomerene bill says in section 21, "when package freight or bulk freight is loaded by a shipper and the goods are described in a bill of lading merely by a statement of marks or labels upon them or upon packages containing them, or by a statement that the goods are said to be goods of a certain kind or quantity, or in a certain condition, or it is stated in the bill of lading that packages are said to contain goods of a certain kind or quantity or in a certain condition, or that the contents or conditions of the contents of packages are unknown, or words of like purport are contained in the bill of lading, such statements, if true, shall not make liable the carrier issuing the bill of lading, although the goods are not of the kind or quantity or in the condition which the marks or labels upon them indicate, or of the kind or quantity or in the condition they were said to be by the consignor. The carrier may also by inserting in the bill of lading the words 'shipper's weight, load and count' or other words of like purport indicate that the goods were loaded by the shipper and the description of them made by him; and, if such statement be true, the carrier shall not be liable for damages caused by the improper loading or by the non-receipt or by the misdescription of the goods described in the bill of lading; provided, however, where the shipper of bulk freight installs and maintains adequate facilities for weighing such freight, and the same are available to the carrier, then the carrier, upon written request of such shipper and when given a reasonable opportunity so to do, shall ascertain the kind and quantity of bulk freight within a reasonable time after such written request, and the carriers shall not in such cases insert in the bill of lading the words 'shipper's weight' or other words of like purport, and if so inserted contrary to the provisions of this section, said words shall be treated as null and void and as if not inserted therein."

Section 20 prohibits the use of the words "shipper's weight, load and count," or any words of like purport, when the goods are loaded by the carrier, and also prohibits the use of any words indicating that the goods were loaded by the shipper and the description of them made by him, or, in case of bulk freight and freight not concealed by packages, the description made by him.

It follows, therefore, that if the shipper wishes to make the carrier fully responsible for the goods, he need only deliver the goods to the carrier

to be loaded by it, and can then demand a bill of lading covering both the kind and quantity of the goods. It is manifest that in many cases such a bill of lading is essential when it is to be made the basis of the payment or acceptance of a bill of exchange before the arrival and examination of the goods themselves. If the bill of exchange is to be paid or accepted on the faith of the goods it is necessary that the payer or acceptor shall be in possession of trustworthy evidence that the goods contracted for will be really delivered. In the case of very responsible shippers, such as one of the big packing concerns, the payer or acceptor of a draft can rely on the good faith and financial standing of the shipper and can therefore pay or accept on the faith of a bill of lading that shows shipper's weight, load and count.

The Chamber of Commerce of the United States gives the following reasons for urging the passage of the Pomerene bill:

1. The bill of lading has today become much more than a mere contract of affreightment. It now has the added and very important function of an instrument of credit, upon which billions of dollars are yearly advanced:

(a) By consignees who pay for goods upon presentation of drafts with bills of lading attached, in reliance upon the statements contained in those bills;

(b) By bankers who lend to shippers and to consignees upon the credit of bills of lading.

2. The conditions and necessities of business require that such payments by consignees and such loans by bankers shall be made upon the bill of lading rather than upon the goods themselves. Our cotton, grain, farm products—indeed, all of our raw materials and our manufactured articles are largely moved by advances made upon bills of lading. The Pomerene bill recognizes this function of the bill of lading and provides rules which give it a legal status and value which it cannot possess under the existing federal law.

3. Section 22 of the bill adopts a rule, long in force in our leading commercial states, which makes the carrier liable to a bona fide consignee or banker who pays or lends money upon a bill of lading issued by an authorized agent, certifying the receipt of the goods, although no goods in fact have been received. It rightly applies the rule which makes the principal responsible for the act of his authorized agent performed within the scope of his authority to one who relies thereon to his injury. This same principle applies to banks and other corporations which issue negotiable documents, and there is equal necessity that it should apply to carriers; otherwise the bill of lading fails in its function as an instrument of credit.

4. Section 37 contains another important provision. That section gives full negotiability to bills of lading and thereby affords greater protection to the discounting banker and to the purchaser of the goods.

Where they acquire a bill of lading in good faith, that bill is made enforceable and is not subject to some unknown defect in the title of a prior holder.

5. The Pomerene bill makes criminally liable the person who forges a bill of lading and the agent who issues a bill that does not represent goods. This is a much needed reform. No punishment is now provided for such criminals under the federal law. Bills of lading purporting to represent goods of a value of about $11,000,000 were fraudulently negotiated in 1910 and in 1914-1915, and no one connected with either of these frauds has been punished. This failure to punish admitted criminals was due to the fact that no federal statute existed upon which an indictment could be found. While the state authorities had the power to prosecute, no prosecution under the state laws was even seriously considered. Unless the Pomerene bill becomes law the door will still remain attractively open for the defrauding of our purchasers abroad. At the present time when every effort is being made to encourage our trade with South America a repetition of such frauds would do more damage than all of the honest merchants in the country could undo in a generation.

6. The Pomerene bill will also promote the interstate and foreign commerce of the country by making bills of lading inherently safe. The bill is especially advantageous to the small shipper who, unless he can procure advances upon the faith of his bill of lading, cannot conduct business at all.

7. Sound bills of lading will also facilitate the handling of drafts drawn against them and add to the safety of our federal reserve bank system. As trade acceptances develop, the safety of our bills of lading will become increasingly important.

8. It is objected that the bill shifts the burden from the bank to the railroad, but that is where the burden belongs. The railroad employs the agent and holds him out to the public as authorized to issue bills of lading. If the agent abuses his trust, his principal—not the public—should suffer. The railroads should not be heard to say that it will cost them too much to make their bills of lading honest documents; as a matter of fact vigilance will prevent most of the irregularities and insurance will protect the railroads against the rest at a comparatively small cost. This change will make our law uniform with that of every other commercial country in the world, except only Great Britain and her colonies.

9. It is further objected that the Pomerene bill is not necessary because the interstate commerce commission has jurisdiction to give the necessary redress to the innocent payer or lender upon a false bill of lading, but that is not so. The interstate commerce commission cannot change the federal law and make it conform to the law of our leading commercial states, nor can the commission declare any act to be a crime or prescribe the punishment for that crime.

PROBLEM—COMMISSIONS AND FEDERAL TAX

Editor, Students' Department:

SIR: Corporation A was desirous of employing C as a general manager, but could not agree with him as to the fixed salary which he was to receive. C, being confident of his ability to manage the business so as to make it profitable, proposed to accept as his total pay 5 per cent. of the net profits of the business for the year. In calculating the net profits it is agreed that the federal income tax for the year shall be covered by a reserve and shall be charged against the profits of the year. This proposition was accepted by A.

The books are closed, and it is ascertained that a profit of $100,000.00 has been made before taking into consideration C's commission of 5 per cent, or the federal tax of 1 per cent. How much is the commission that C is entitled to? What is the federal tax? And how are these amounts found?

Yours truly,

STUDENT.

This question is not specific as to the basis on which the commission paid to C is to be calculated. He may claim that the net profits on which he is to receive 5 per cent. are those which are shown before the commission is deducted, while the corporation may claim that the commission is paid him in place of a regular salary and should be charged against the profits before the net profit is ascertained, exactly as would have been the case with a regular fixed salary. In any event the tax must be calculated on the profits less the commission, since the commission is an undoubted operating expense.

The problem can be worked out by algebra, using x and y as the symbols for the two unknown quantities of the tax and the commission. It can also be done by arithmetic.

Taking the view that the commission is to be calculated on the net profits before the commission is deducted:

Let 100 per cent. = profit after deducting commission, but before deducting the tax (that is, the basis of the tax).
Then 1 per cent. = tax
And 99 per cent. = net profit after deducting commission and tax.
Since the net profit is 95 per cent. of 100,000 less the tax,
Then 99 per cent. = 95 per cent. x (100,000 — 1 per cent.)
Dividing both sides by 95 per cent.;
Then 99 per cent. ÷ 95 per cent. = 100,000 — 1 per cent.
Or 104.210525 per cent. = 100,000 — 1 per cent.
Transferring the 1 per cent.;
105.210525 per cent. = 100,000
Then 100 per cent. = 95,047.52½, the basis of the tax
And 1 per cent. = 950.47½, the tax
And 99 per cent. = 94,097.05, the net profit after deducting commission and tax.
The commission is based on 100,000 — 950.48 (the tax), or 99,049.52, on which 5 per cent. is 4,952.47.

Summarizing:

Commission,	4,952.47
Tax,	950.48
Net profit,	94,097.05
Gross profit,	100,000.00

It must be noted that the tax is calculated on $95,047.52 as net profits, not on the actual net profits of $94,097.05. This is because no tax can be deducted from profits in making the income return, unless it is actually paid. In settling with C, however, the tax is to be deducted. Hence there are apparently two different net profits.

Taking the view that the commission is based on the net profits after both the commission and the tax are deducted:

By the terms of the problem, the basis of the tax will be $100,000.00 less the commission, and the basis of the commission will be $100,000.00 less both tax and commission.

Let 100 per cent. equal basis of tax.
Then 1 per cent. equals the tax.
Since $100,000.00 — commission — tax = basis of commission
And since $100,000.00 — commission = 100 per cent.
And since the tax = 1 per cent.
Therefore 100 per cent. — 1 per cent. = or 99 per cent. = basis of commission or net profit.
And 5 per cent. of 99 per cent. = 4.95 per cent., the commission.
Then:

99 per cent. the net profit
1 per cent. the tax
4.95 per cent. the commission

104.95 per cent. = $100,000.00
Dividing, we have:
100 per cent. = 95,283.47 or $100,000.00 less commissions
1 per cent. = 952.83 the tax

99 per cent. = 94,330.64 the net profit, of which
5 per cent. = 4,716.53 the commission

Summarizing:

The tax is,	952.83
Commission,	4,716.53
Net profits,	94,330.64
Gross profits,	$100,000.00

It might seem that since the tax is 1 per cent. and the commission is 5 per cent. of the net profits, $100,000.00 could be considered as 106 per cent. of the net profits. This would give:

Net profit,	94,339.62
Commission 5 per cent.,	4,716.98
Tax 1 per cent.,	943.40
	100,000.00

This is not correct because it deducts the tax from the net profits before it is paid, which is contrary to the rulings of the treasury department. Only those taxes actually paid in cash can be charged against profits in making the returns for the federal tax.

The difference between the amounts of the commission due to C, according to whether the net profits are or are not subject to the charge of the commission before it is ascertained, emphasizes the necessity for care in drawing up contracts of this character. An attorney is not likely to see that the contract as stated is ambiguous. In such cases an accountant should always be consulted as to the wording of the contract, as any competent accountant would recognize the danger of there being two constructions placed on the contract, with a consequent dispute involving the difference of $235.94 in C's commission.

Bond Discount in Consolidated Balance Sheet

Editor, Students' Department:

Sir: On January 1, 1910, company "A" purchased 90 per cent. of the capital stock of company "B." On January 1, 1909, company "B" had issued 20-year bonds amounting to $1,000,000 at 95, and carried forward an item of discount on bonds amounting to $50,000. These bonds had been closely held and during the year 1910 were all acquired by company "A" at a cost of $990,000. How should these items be shown in a consolidated balance sheet of the two companies as of January 1, 1911? Assume that no part of the bond discount had been written off by company "B."

Yours truly,

M. H. R.

At first reading it looks as if the purchase of the bonds by A at a price $40,000 in excess of the price realized by B when it issued the bonds had extinguished $40,000 of the original discount in preparing a consolidated balance sheet. Further reflection will show that the deferred charge on B's books can be eliminated only by an entry debiting surplus. Even if B possessed a surplus large enough to stand the debit, it would not be fair to the minority stockholders, holding one-tenth of B's stock, to charge them at once with a discount which should be spread over the life of the bonds.

Assuming that any profits that had been made by either company had been paid out as dividends, and for convenience carrying the bonds in both companies at par with an offsetting debit or credit for the discount,

and supplying other figures to balance, we would have the following statement as of January 1, 1911:

		B		*A*	*Consolidated*	
Capital stock,		1,000,000		2,000,000		2,000,000
Bonds,		1,000,000				
Bonds of B,			1,000,000			
Discount,	50,000			10,000	40,000	
Investment B stock,			900,000			
Net assets,	1,950,000		110,000		2,060,000	
Minority B stock,						100,000
	2,000,000	2,000,000	2,010,000	2,010,000	2,100,000	2,100,000

Thus it is seen that the unextinguished discount of $50,000 is practically offset by the discount gained by A and that the net amount of $40,000 must be carried by the consolidation to be eventually written off out of the profits of B, and therefore out of the profits of the consolidation. In the meantime the discount must be carried on each set of books, since the minority stockholders in B must stand their share of the total discount of $50,000, and have no part in the discount earned by A. Assuming that in the year 1911 B made a profit of $25,000 and A of $15,000, increasing their net assets by those amounts respectively, and that one-tenth of the discount was to be written off, there would be entries made as follows: (one-tenth is assumed for convenience, as illustrating the principle, since exact figures cannot be given for A, because date of purchase is not known.)

By B, surplus,	5,000	
To discount,		5,000
By A, discount,	1,000	
To surplus,		1,000

The statement would then be as follows, it being noted that the amount due the minority stockholders of B must be the book value of their stock as shown on B's books. This will reduce the consolidated surplus by $2,000, which belongs to the B stockholders, being their 10 per cent. of B's net surplus of $20,000.

Capital stock,		1,000,000		2,000,000		2,000,000
Bonds,		1,000,000				1,000,000
Treasury bonds,			1,000,000		1,000,000	
Discount,	45,000			9,000	36,000	
Investment B stock,			900,000			
Net assets,	1,975,000		125,000		2,100,000	
Surplus,		20,000		16,000		34,000
Minority B stock,						102,000
	2,020,000	2,020,000	2,025,000	2,025,000	3,136,000	3,136,000

This shows that the minority stockholders of B have had their share of the profits reduced by one-tenth of $5,000, while A has had its profits reduced only $3,500, or $1,000 less than nine-tenths of $5,000. If there had been no discount charged off, the combined profits would have been $40,000, of which A would have been entitled to $37,500 and B's minority stockholders to $2.500. (A's profits $15,000 plus nine-tenths of B's profits $22,500.)

In the last consolidated balance sheet the bonds are shown as a liability and as treasury bonds, because they have not been cancelled and can at any time be sold by A. They are therefore available assets of the consolidation and are an exception to the rule that inter-company accounts are eliminated. In this case, while they offset each other, they are not eliminated.

In setting up the consolidated balance sheet in the ordinary form, the bonds could be shown short on the liability side, treasury bonds deducted and nothing carried out. This idea is expressed in the first consolidated balance sheet by omitting the bonds altogether, which is objectionable for the reason stated above.

Inter-Company Profits

The following problem was given in the Wisconsin examination, May, 1916:

On January 1, 1916, a corporation, the "C" company, was formed with a capital stock of $6,000,000, of which $5,000,000 was common stock and $1,000,000 was preferred stock. The "C" company as of January 1, 1916, purchased the capital stocks of "A" and "B" companies, balance sheets of which at December 31, 1915, are shown below. The preferred stock of the "C" company was sold to the public for cash at par, the stockholders of the "A" company received the entire $5,000,000 of the common stock of the "C" company for their holdings in the "A" company, while the stockholders of the "B" company were paid $500,000 in cash for their holdings in the "B" company.

Prepare a consolidated balance sheet showing the financial position of the "C" company as of January 1, 1916, after giving effect to the foregoing transactions. Your working papers should show the process by which you arrive at the final balance sheet figures.

It should also be understood that the "A" company had in its inventory at December 31, 1915, materials valued at $250,000, purchased from the "B" company on which the "B" company had made a gross profit of 20 per cent.

"A" Company

Balance sheet—December 31, 1915

Assets		Liabilities	
Real estate, buildings, machinery and equipment,	$1,000,000	Capital stock, 15,000 shares, $100 each,	$1,500,000
Inventories,	1,500,000	Notes payable—"B" company,	100,000
Accounts receivable,	500,000	Others,	400,000
Cash,	50,000	Accounts payable—"B" company,	100,000
Prepaid insurance and taxes,	10,000	Others,	700,000
		Surplus,	260,000
	$3,060,000		$3,060,000

"B" COMPANY

Balance sheet—December 31, 1915

Assets		Liabilities	
Real estate, buildings, machinery and equipment,	$250,000	Capital stock—1,000 shares, $100 each,	$100,000
Inventories,	75,000	Accounts payable,	140,000
Accounts receivable—		Surplus,	262,000
"A" company,	100,000	Contingent liability in respect of notes of "A" company discounted at banks, $100,000	
Others,	50,000		
Cash,	25,000		
Prepaid insurance and taxes,	2,000		
	$502,000		$502,000

SOLUTION

This problem may be answered by setting up a set of columns debit and credit for each of the three companies, a fourth set of columns for adjusting entries and a fifth set for the final balance sheet, ten columns in all, besides space for the names of the accounts. Not only does this take up more room than is available here, it is also not as clear to the ordinary person as the narrative form is.

In buying "A" company, "C" gave $5,000,000 of its common stock for net assets of $1,760,000 represented by the capital stock and surplus of the "A" company. It must therefore have allowed $3,240,000 for the goodwill of "A."

In the same way, by paying $500,000 cash for $362,000 of the net assets of the "B" company, "C" was allowing $138,000 for goodwill.

This is subject to adjustment for the inter-company profit on the $250,000 of material purchased by "A" from "B" at a gross profit to the latter of 20 per cent. At this point the problem is faulty, because it does not state whether "B" calculated its percentage of profits on cost or on selling price. The logical method would be to figure them on cost, but since all the figures are round amounts we assume that the examiners intended to calculate the profits on selling price. This would make the profit $50,000. If this is eliminated from the accounts of "B" it will reduce its surplus to that extent, which must be offset by equally reducing the amount due from "A," and would necessitate a corresponding reduction by "A" of its inventory and of the amount due to "B." This change in the personal accounts is not feasible, and it would be impossible if "A" had paid its debt to "B," since there would then be no personal accounts to change. It might appear that another alternative would be for "B" to set up a reserve for $50,000 out of its surplus to offset its profit in the goods sold to "A." This would not be correct, because as far as "B" is concerned the profit is made, and there is no reason why "B" should not express it. As the necessity for setting up the reserve against unrealized profit in inventories arises only when the accounts are consolidated, the reserve should appear only on the consolidated balance sheet of "C." As this reserve acts as a reduction of the consolidated

inventories, it reduces the combined net worth and therefore increases the amount of goodwill paid for by "C."

Therefore the goodwill of the consolidation would be found as follows:

Excess of payment to "A" over net worth.....	$3,240,000
Excess of payment to "B" over net worth.....	138,000
Reduction of combined net worth.....	50,000
Total goodwill.....	$3,428,000

"B's" balance sheet should contain an asset of notes receivable "A," and the contingent liability of notes receivable "A" discounted should be carried out. Then "A's" notes payable "B" would be offset against "B's" notes receivable "A," leaving as a liability of the consolidation notes receivable "A" discounted. Offsetting "A's" accounts receivable "B," against "B's" accounts receivable "A," we would have the following:

"C" COMPANY

Consolidated balance sheet, December 31, 1915

Assets		Liabilities	
Real estate, buildings, machinery and equipment,	$1,250,000	Capital stock, common,	$5,000,000
		Capital stock, preferred,	1,000,000
		Notes payable,	400,000
Goodwill,	3,428,000	Accounts payable,	840,000
Inventories,	1,575,000	Notes receivable "A" discounted,	100,000
Accounts receivable,	550,000		
Cash,	575,000	Reserve, unrealized profit in inventory,	50,000
Prepaid insurance and taxes,	12,000		
	$7,390,000		$7,390,000

If the profit is to be figured on the cost, it would be necessary to divide $250,000 by 1.20 to ascertain the cost, which would be $208,333, making the reserve $41,667, instead of $50,000, with a corresponding reduction in the goodwill.

There is also a strong argument in favor of considering the raw material held by "A" as worth $250,000, provided that is not more than its market price, on the ground that it is actually worth that amount to "A" whether it was bought from "B" or from an outsider. The objection to setting up the reserve is that it increases the capital asset of goodwill by an amount which becomes surplus as soon as the raw material is used. In other words, $50,000 of the goodwill is made by an eventual credit to surplus, since at the end of 1916 the inventory of January 1, 1916, would be charged to revenue account less the reserve of $50,000.00, thus increasing the profits of 1916 by that amount with a corresponding increase in the credit to surplus.

North Carolina State Board of Accountancy

At the examinations conducted by the North Carolina state board of accountancy, June 23rd and 24th, the following candidates were successful: Russell G. Rankin, Washington, D. C.; Clifford M. Stoy, Charlotte, N. C.; William C. Jackson, Charlotte, N. C.; and John W. Todd, Charlotte, N. C.

Kentucky State Board of Accountancy

The governor of Kentucky has appointed the state board of accountancy authorized by the recently enacted law. The board, which consists of three members, has organized and elected the following officers: President, J. R. Mayes, Louisville; secretary, Raymond E. Klein, Fort Thomas; treasurer, E. C. Conley, Catlettsburg.

Oregon State Society of Certified Public Accountants

At the annual meeting of the Oregon State Society of Certified Public Accountants the following officers were elected: President, W. D. Whitcomb; vice-president, S. L. Roberts; secretary, C. A. Mackenzie; delegate to the American Association, W. R. Mackenzie.

John H. Baker, C.P.A. (Col.), announces the removal of his main offices from Colorado Springs to suite 1231-1234, First National Bank building, Denver. Mr. Baker still retains a local office at 420 Hagerman building, Colorado Springs.

Richard F. Ring, C.P.A. (Illinois) died at Louisville, Kentucky, June 29, 1916. Mr. Ring was formerly in the Chicago office of Barrow, Wade, Guthrie & Company, and for the past four years had been practising in Louisville.

Geo. B. Buist, C.P.A., (Ill.) announces the opening of an office in the Shoaff building, Fort Wayne, Indiana.

Alexander F. Makay, C.P.A., announces a change of address to 347 Fifth avenue, New York.

The American Association of Public Accountants

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The American Association of Public Accountants

ANNUAL MEETING, 1916

The committee on annual meeting announces to the membership that it has been decided to hold the annual meeting of 1916 at the Waldorf Astoria, New York.

The committee draws to the attention of members the fact that New York hotels are invariably crowded in September, and therefore it will be necessary for those who intend to be present to make their reservations as early as possible.

The annual meeting will be held September 18, 19, 20 and 21, 1916.

The following programme has been prepared by the committee and approved by the board of trustees:

Monday, September 18

9:30 A. M.—Meeting of the board of trustees.
4—6 P. M.—Reception by the New York state society.
8:30 P. M.—Entertainment and informal dance at invitation of the New York state society.

Tuesday, September 19

10 A. M.—Business session: addresses of welcome by the mayor of the city and president of the Merchants Association. Reply by president of New York State Society of Certified Public Accountants. Presentation of credentials, addresses, and reports.
8 P. M.—Theatre party at invitation of New York state society.

Wednesday, September 20

10 A. M.—Business session.
2:30 P. M.—Business session.
3 P. M.—Boat trip around Manhattan Island for ladies and others who can participate.

Thursday, September 21

10 A. M.—Closing business session: induction of newly elected officers.
2:30 P. M.—Meeting of the board of trustees.
7 P. M.—Annual banquet—Toastmaster Harvey S. Chase.
Midnight—Entertainment at invitation of Accountants' Round Table.

Friday, September 22

Outing to be conducted by the New York state society.

The committee on annual meeting earnestly hopes that there will be a large attendance. The committee will be glad to answer any inquiries which may be addressed to it and to render every assistance in its power to those who expect to be present.

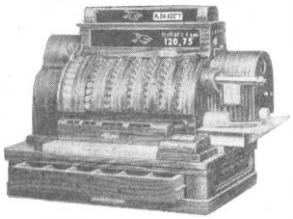
Kindly notify the committee as soon as possible if you will be able to attend.

Please address all communications to the secretary, 55 Liberty street, New York.

ELIJAH W. SELLS, *Chairman.*
JOHN R. LOOMIS,
ADOLF S. FEDDE.

A. P. RICHARDSON, *Secretary.*

Protecting Retail Merchants Against Causes of Failure



Every Manufacturer or Wholesaler who sells to Retail merchants, directly or indirectly, is vitally interested in any system or device that will stop up the leaks and losses that are wrecking or crippling so many retailers.

And every Bank that loans money to Retail merchants or to Wholesalers can greatly safeguard its loans by seeing to it that the Borrower is properly protecting himself against loss.

Therefore, it is proper that we should call your attention to the fact that a multiple-drawer National Cash Register

(1) Makes each clerk responsible for his own transactions.

(2) Gives the proprietor, at the day's end, an accurate printed record of the cash and the charge sales for each stock or department.

(3) Tells him, automatically, the outstanding Credit sales up to date—a valuable safeguard against a too great expansion of Credits.

(4) Gives him an unchangeable record of each clerk's day's work —number—total and average sales—for cash or credit.

(5) Enables him to enter each day, on a sheet provided for the purpose, an accurate statement of the cash register totals. This record constitutes a Balance-sheet which is a better basis for credit at his bank or wholesaler, than any system ever before devised.

(6) Increases sales and profits by stimulating clerks to better efforts and greater carefulness.

Let us tell you more about this important force in better merchandising and better credits.

Use the Coupon.

The National Cash Register Company
Dayton, Ohio

The National Cash Register Co., Dayton, O.

Please send me literature and data of value to accountants and credit men who are interested in the problems of Retail merchants.

Name.....

Address.....

Remarks.....