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Discussion in reference to maintenance and depreciation charges in accounts of public service corporations before The Incorporated Public Accountants of Massachusetts, after dinner at the Boston Athletic Club, April 11, 1907

Harvey S. Chase

Incorporated Public Accountants of Massachusetts

DISCUSSION in Reference to Maintenance and Depreciation Charges in Accounts of Public Service Corporations Before "The Incorporated Public Accountants of Massachusetts", After Dinner at the Boston Athletic Club, April 11, 1907 . . . .

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DISCUSSION IN REFERENCE TO MAINTENANCE AND DEPRECIATION CHARGES IN ACCOUNTS OF PUBLIC SERVICE CORPORATIONS BEFORE "THE INCORPORATED PUBLIC ACCOUNTANTS OF MASSACHUSETTS", AFTER DINNER AT THE BOSTON ATHLETIC CLUB, APRIL 11, 1907. . . . .

GUESTS.

FORREST E. BARKER, Chairman Massachusetts Gas and Electric Light Commission.

ALONZO R. WEED, Member Massachusetts Gas and Electric Light Commission.

AUSTIN B. FLETCHER, Secretary of the Massachusetts Highway Commission.

FREDERIC J. WHITING, Editor of the Inter-Nation.

JOHN S. HODGSON, Formerly Editor of the Municipal Journal.

ROBERT S. GRANT, Auditor of the Boston Consolidated Gas Company.

EDMUND W. LONGLEY, Auditor of the New England Tel. and Tel. Company.

A. E. STONE, Auditor of the Boston and Worcester Street Railway Company.

A. R. PATTERSON, of Stone & Webster's Companies.

MAINTENANCE AND DEPRECIATION CHARGES IN ACCOUNTS OF PUBLIC SERVICE CORPORATIONS.

Address by the President, Harvey S. Chase, I. P. A.; C. P. A.

The fulcrum, upon which is balanced the long lever, one of whose arms is known as "Municipal Ownership" and the other arm as "Private Operation," must be seen, when the truth comes to be known, to be that much discussed and much misunderstood matter, *depreciation of machinery and plant.* Other elements of expenditure and income in both publicly and privately operated plants are comparatively simple and definite. Maintenance, including depreciation, is on the contrary exceedingly complicated. Actual expenses incurred for labor and materials, for salaries, for general expenses, taxes, insurance, interest and the like, may be correctly accounted for by ordinary bookkeeping methods, but when we come to maintenance we fall immediately into a maelstrom of estimates, discussions, antagonistic views and chaotic conditions so far as bookkeeping upon this subject is concerned.

A realizing sense of the fundamental importance of establishing practical standards for depreciation charges in all classes of industries, particularly in public service corporations and in municipal industries, is now becoming evident. Auditors, comptrollers and managers of these enterprises are anxiously seeking for light upon such subjects and all men who make studies of municipal affairs become convinced of the necessity for uniform and standard methods for handling depreciation questions which should be identical in and mandatory upon both public service companies and municipal enterprises.

If this statement of the present condition of things is correct, then the purpose underlying this meeting and this paper is sufficiently evident. The writer has been led to give much thought and time to these subjects on account, 1st, of litigation in connection with public service companies in Massachusetts and elsewhere wherein questions of depreciation were fundamental, and 2nd, on account of experience in reorganizing municipal accounts and methods of annual reports, wherein the absolute necessity for uniform and standard schedules is now recognized and asserted by those who are experts in these matters all over this country and abroad, particularly at the present time in Great Britain.

A brief resumé of the movement for uniform accounting in municipalities will not be out of place here. The story of this movement is interesting. It began right here with us in 1900, when the City of Newton, for one year, by vote of its mayor and aldermen made the first practical experiment in standard and uniform reporting by adding an appendix to the city auditor's report, drawn up on the schedules of the National Municipal League. This printed report was sent all over the country. The same form was immediately adopted by Baltimore, then by Chicago, by Brookline, by Cleveland, Cincinnati, Columbus, Toledo, and all the cities of the State of Ohio, by Cambridge, by Minneapolis, by Rochester, Duluth, St. Louis, by Houston, Texas, and finally now in the present year the Comptroller of the City of New York, in his final report for the year 1904, just published, includes therein, as an appendix, a statement of the receipts and payments of that huge city, set forth exactly upon the lines of the uniform schedules as laid down by the Census following the National Municipal League's scheme.

Now, this is a wonderful transformation in a few years. When the movement was begun, no city comptroller was so poor as to do it reverence. None believed such a broad plan practicable. All were too much engaged in the difficulties and ruts of their own daily affairs to be able to give the necessary attention to this important matter. It was only by driving hard at one city after another, and in each one driving still harder at one man and one official after another, that progress was made. Converts came slowly at first, but rapidly later, as the practical possibilities were established by actual applications in large and small cities, the Ohio situation being the dominant one which finally clinched the argument and the illustration.

When the permanent Census Bureau was established it surveyed the country in order to carry out the law for the collection of statistics of cities. It found this National Municipal League schedule in use in so many cities that it adopted it at once as its own basis and proceeded to improve it and enlarge it and make it better than before until now we have arrived closely to a true standard for city reports whereby comparison of financial results can be correctly made.

A most natural outgrowth of the movement for uniformity in municipal affairs has been the present agitation for standardization of accounts of public services, whether publicly managed or privately managed. The first step toward concentrating public attention upon the question as a whole was taken at the Conference called by the United States Census Bureau at Washington, D. C., in February, 1906, when a summary schedule covering revenue and expense was presented by the present writer and discussed at length by the Conference. A committee of five was appointed by the chairman, Dr. L. G. Powers of the Census, and this committee unanimously reported an amended schedule which was accepted by the Conference. This amended schedule was later presented to the American Association of Public Accountants and a special committee was appointed by that national body to consider the subject and report in October, 1906. The report of this committee was duly made and has been printed and I have here copies of the schedule as it stands at present. The committee's work is not yet completed and the results of tonight's discussion will be fully reported to that committee and carefully considered by it. Practical results from our discussion tonight are therefore assured.

In order that there may be no misunderstanding I will state plainly that the forms here set forth have not been finally accepted by any individual or committee. They are tentative forms devised for the purpose in hand and subject to modification hereafter. With this explanation the schedule may now be presented, mainly as a basis for further discussion.

We will first consider the proper form for "Revenue and Expense" transactions of a public utility during the fiscal year, including in this item all revenues accrued during the year and all expenses incurred during the year. The fundamental items of such a statement are three: First, the revenue; second, all expenses which must be paid ultimately out of revenue; third, the excess (or deficiency) of revenue for the year and the disposition of it.

The expenses of operating are set forth under eleven headings. The first three are common both to publicly operated and to privately operated plants and are ordinarily set forth in the accounts of most plants. Items 4 to 11 are separately stated, but are also important elements of expense and all of them must ultimately be provided for out of the revenues of the plant. If these elements of expense are not properly provided for in this manner in the accounts there will come, sooner or later, a time when the enterprise, if privately operated, will fail and require reorganization and new capital. If publicly operated the drain upon the tax levy will become overwhelming and the public operation will be denounced and abandoned.

All of these ten items are true "expenses of operating." In addition to them there are other requirements which must also be provided for, such as interest payments and provisions for sinking funds. In private plants these items must be paid out of revenue; they cannot be provided from capital. Similarly these items in a municipal plant must be provided from revenue; either from revenue of plant, or from appropriations of general tax levy. Appropriations for these purposes are legitimate and proper as they have to do only with the manner in which the municipality provided the original cost (capital) of the plant. In the schedule we therefore handle these items as "dispositions of net revenue," and not as elements of "expense of operating."

It is desirable to bring to your attention a number of other important points.

First. It is evident that revenue from sales of product—water, gas, electricity, power, etc.,—should be separated from revenue from extraneous sources, such as from rents, or from investments and securities, etc. In the schedule these extraneous sources of revenue are set forth as explained above, and do not affect the financial results of the business viewed solely as a gas undertaking, an electric undertaking, etc.

Second. It is evident that discounts, rebates, refunds, etc., should be handled as deductions from revenue, not added to expense, thus giving true "earnings", actual revenue.

Third. There are three primary divisions of expense as previously mentioned.

1. "Expense for manufacture", pertaining to gas, electricity or power for street railways; this subdivision for water being called "expense for water supply and storage."

2. "Expense for distribution", which explains itself. Each of these two divisions is subdivided into "operation" and "maintenance"; "operation" covering strictly running expenses, and "maintenance" covering repairs and ordinary renewals. These subdivisions are essential for this reason: That as this schedule is to apply both to public plants and to private plants, the relative cost of "operation", i. e., actual running expense, should be evident, and likewise the relative amounts expended, or laid aside for repairs, including deterioration, should be in evidence.

Comparing a public enterprise with a private enterprise, the operation expense of the first plant may be heavier than the corresponding expense of the second plant, while the maintenance (repairs) expense of the first may be much less than that of the second. Important differences in administration would thus be shown by our schedule, whereas if these items appeared only as a total in each plant, these totals might be approximately the same and conclusions drawn therefrom might then be exceedingly misleading.

3. The third division of expense is "general expense." A designation which we all understand. The important point here is that "general expense" shall not include any of the items which are sure to differ very materially between public plants and private plants per se. That is to say, taxes and franchise payments are distinctively private plant charges; sinking fund provisions are commonly only public plant charges. Insurance differs very greatly. Interest varies markedly. Damages and extraordinary legal expenses apply differently. Depreciation is usually inadequately handled, etc., etc. Therefore we do not include any of these variables in "general expense". They follow later in the schedule. The items which should be included in "general expense" are these: Salaries of officers, general salaries, directors' allowances, rent of offices, general office expenses, postage, telegraph, telephone, stationery and printing, ordinary legal expenses, etc.

Fourth. The total of the three primary divisions of "expense" is then given. Comparisons of the costs of public and private administration up to this point may be safely made as all the preceding elements should be identical in character.

Fifth. All additional items which are necessary elements of expense before "net revenue" can be established may be considered somewhat as variables. These represent actual facts even though they may be omitted in the bookkeeping. Taxes are paid by private plants, but usually lost to the public treasury through public plants. They must be properly considered for for correct comparisons. Insurance, in its various phases, is a risk which must be taken and estimated, or paid for.

Damages and legal expenses (extraordinary) differ greatly between public and private plants and are therefore set up separately here.

Guaranty for losses on bad debts or other shrinkages of current assets is also variably handled.

Depreciation of machinery and plant is complicated and difficult to allow for and yet it goes on daily and hourly in every plant. It must be provided for either consciously in the books or unconsciously in undistributed reserves or else the plant will suffer and the capital value will be reduced.

All these items are true charges against revenue before profits, or net revenue, can be established.

Owing to the different methods of providing capital for public plants and for private plants the returns upon (or repayments of) this capital must be carefully considered in the reports and disclosed in the schedules. Public capital is usually borrowed on bonds or notes and paid off through sinking funds. Payments into sinking funds for such a purpose are therefore distributions of net revenue just as much as dividends upon share capital in private plants are distributions of profits. Interest also is a payment for use of capital—borrowed capital, to be sure, but still capital. Payments of interest are therefore actually distributions of net revenue paid upon borrowed capital in place of dividends paid upon share capital.

In order to correctly compare distributions of profits in private plants with net revenues in public plants, we must consider the total of dividends, interest and sums laid aside for surplus in the former against the total of interest, sinking fund items and returns to the general municipal treasury similarly laid aside in the latter.

The next division of the schedule, "disposition of net revenue", is therefore of fundamental importance. All of the items included thereunder have no relation to "expense of operating". They are merely distributions of net revenue. That this is true of dividends is universally accepted. That it is true of moneys laid aside for sinking funds is also evident after a moment's thought. To consider interest in the same category is perhaps difficult for the average fiscal officer, but it is apparent that this item represents the use of capital, in this case borrowed money.

It would be impossible to compare net revenues of public and private plants if interest were put above the line while dividends were left below the line. Take for instance a private corporation with $500,000.00 share capital and no bonds, and a municipal industry with $500,000.00 4 per cent. bonds outstanding. If interest were put above the line the public plant would be charged $20,000.00 as an expense item, whereas the private plant would have no such charge above the line. This distinction is essential and must be carefully observed for all comparative purposes.

The remainder of the schedule explains itself, and I need say only that each of the items given in this consolidated statement should be set forth in details on subsidiary supporting schedules which are handled almost identically, in public plants and private accounts provided in the standard schedules of the American Water Works Association, the American Gas Light Association, the National Electric Light Association and the Association of Street Railway Accountants. It will be found feasible and practicable to draw off the items needed for the consolidated statement, herewith submitted, direct from the standard detailed schedules of these four national associations.

Already the purpose of the standard schedule has appealed to a wide constituency in this country and in Great Britain, and it may be safely stated that the effect of a full discussion of the fundamental accounting propositions concerned in it cannot be other than exceedingly beneficial to officers of both public and private plants, to public accountants, to business men and to intelligent citizens generally.

The writer has no bias for or against municipal ownership, and he appreciates fully that financial results are by no means the only ones which must be carefully considered when comparisons are made between public and private operation. Other matters are frequently of equal or greater importance. Financial results, however, are of serious importance and they cannot be too fully and accurately stated. Municipal officers and citizens should be enlightened by the accounts and reports from their plants, not blinded and misled by them as is frequently the case at present.

The United States Census is about to undertake a complete inquiry into municipal operation of public utilities throughout the country, and great care will doubtless be given to the preparation of standard schedules, both summary and detailed, for all classes of these enterprises.

SUGGESTED FORM FOR STANDARD SCHEDULE
of
REVENUE AND EXPENSE
For Public Service Corporations and Municipal Industries, As Amended By the Special Committee of the American Association of Public Accountants.

REVENUE FROM OPERATING.

Gross Earnings from Public Services ....$
Gross Earnings from Private Consumers ....$
Gross Earnings from By-Products, etc. ....$
Total ....$
Deduct Rebates, refunds, discounts, etc. ....$
Total Revenue from operating ....$

EXPENSE OF OPERATING.

1. Expense of Manufacture.
   Operation .... $
   Maintenance .... $
   Product Purchased (Gas, etc.) .... $
2. Expense of Distribution.
   Operation .... $
   Maintenance .... $
3. General Expense (salaries, office supplies and expenses) .... $
   Total, (1, 2 and 3) .... $
4. Taxes, (Real estate and other) .... $
5. Franchise Taxes (paid or accrued annually or otherwise) .... $
6. Rentals (Leaseholds, etc.) .... $
7. Insurance (Fire, accident and fiduciary).. $
8. Damages (including extraordinary legal and other expenses and losses) .... $
9. Guaranty (Bad debts written off and reserve for doubtful accounts) .... $
10. Depreciation (Deterioration written off and reserve for estimated depreciation) $
11. Miscellaneous .... $

Total Expense of Operating ....$

a. Net Revenue from Operating (or Deficiency) ....$
b. Other Revenue, or Income, net (from sources other than operating) ....$
c. Appropriations for operating, provided by the municipality from general funds ....$

Total Available Income........................$

DISPOSITION OF AVAILABLE INCOME.

Interest on Funded and Floating Debts........................$
Remainder of Available Income ....$
Reserved for Sinking Funds .... $
Reserved for Amortization Funds .... $
Reserved for Other Funds .... $
Total Reserved .... $
Dividends (Private plants) .... $
Appropriation to general city funds (public plants) .... $
Total disposition of Available Income ....$
Credit (or debit) balance transferable to "Surplus" ....$

DISCUSSION.

Question by a member : "Why is insurance set forth separately?"

THE PRESIDENT. The reason is, that these schedules, being drawn primarily for comparisons between publicly operated plants and privately operated plants, all elements of expense which vary very markedly in those two classes of plants have been set up under individual titles; thus insurance is set up as an individual title. In a great majority of public plants, insurance is not as well looked after, certainly, as in private plants. Municipalities are more inclined to run their own fire risks than they are to insure their plants, and therefore, because of the very great variation which there is in charges for insurance among plants of about the same character, this element is set up as one of the variables and not included in the general expense item. The principal intention for the schedule was to set up in Items 1, 2 and 3, the matters which are handled almost identically in public plants and private plants, and to set up in Items 4 to 11, the items which are variably handled in those different plants, so that comparison can be made at once in regard to those individual items and deductions drawn therefrom.

THE SECRETARY. Mr. President, while I agree with you on the theory of comparison, I raise this question for the sake of future discussions that may come up. Why would you not consider interest on borrowed capital in a privately operated corporation a legitimate item of expense, as compared with another corporation which might not have to borrow money, thereby saving interest charges because the latter having sufficient working capital and not having to borrow? Is not a corporation that is obliged to borrow through lack of working capital necessarily burdened with that interest expense item, to its disadvantage I admit, as compared with the corporation which has not got to borrow?

THE PRESIDENT. That is quite an important question, and one which has two sides to it. It has been very thoroughly discussed in the meetings of the Committee of the American Association of Public Accountants, and it is the question of all others which awakens discussion at once. I am very glad Mr. Dillon brought it up. When we consider interest, as I have endeavored to state, we are really considering the question of capitalization of the plant; how capital was provided. Was it provided by the issue of shares upon which dividends are paid as they are earned, or was it provided by the issue of bonds, wholly by borrowed money, or was it provided partly by the issue of shares and partly by borrowed money? In any case, it is a question of capital. Now, when we consider municipal plants, a municipal plant ought not to be loaded with an expense due wholly to the method of capitalization of that plant. So far as the actual operating expenses of municipal waterworks or gasworks or municipal electric plants are concerned, these costs should be entirely irrespective of how that capital was provided. The City may provide it by taxation, in which case there would be no interest charge. It may provide it by an issue, in certain cases, of corporate stock, or it may as is done in the great majority of cases, provide it by an issue of bonds. Now, that capital is provided by the community for the purpose of carrying on its plant, and no portion of the expense of providing that capital should be considered as a true element of expense of operating the plant, if we are to compare it with public service corporations which have issued share capital, unless dividends paid upon the share capital be also included in the expense of the private plant. In the latter case, none of us would favor the latter course, and therefore, as I see it, and as the Committee has agreed, interest should be eliminated as an element of operating cost.

THE SECRETARY. Only for comparative purposes.

THE PRESIDENT. Yes, for comparative purposes it is essential that interest be eliminated, but when it comes down to a question whether that interest must be paid out of revenue, of course we agree that it must be so paid.

MR. WM. FRANKLIN HALL. I would like to ask this question: Why are damages set up separately? Do they not apply equally to municipal as well as to public service plants?

THE PRESIDENT. One great trouble in municipal plants is this, that damages incurred on account of municipal industries are not charged against that municipal industry. They are charged through the legal department usually, against the municipal appropriation in which all damages of every kind are handled, and therefore the intention in setting up damages as a special item, was to let it appear definitely whether or not charges for damages and extraordinary legel expenses in connection therewith, appear as an element of the expense of that plant. Do I make that clear?

MR. HALL. I did not quite follow it.

THE PRESIDENT. If I may repeat, in the majority of cases damages are not charged to municipal plants, therefore the presence of such an item in a schedule of this sort would show for itself as much by the omissions as by the expenses whose amounts are put in. For this reason a standard schedule is particularly advantageous.

MR. HALL. In other words, the principal difference between the operation of municipal plants and public service plants is, that the expenses of operation of the municipal plant would be likely to be greater than that of a private corporation, whereas the amount that is expended for maintenance of the company plant would be likely to be greater than in that of a municipal plant. Whereas, insurance, damages, depreciation, and those other matters would not be likely to be set up fully in a municipal plant as in a company, and that in comparing the two plants your idea is, to confine the comparison principally to that of the cost of operation, to the actual operation of the plant, and not specially to these other matters, such as the allowance for depreciation, damages, etc.

THE PRESIDENT. You will find, Mr. Hall, each of these variable items form a part of the total expense of operating. They are all included. These eleven items form parts of the total expense of operation. They are all elements of cost of operation, but a portion of them, which are identical in public and private plants, are set up under three general headings, while the rest of them, which may be accounted for in one and not in the other, are set up separately, so that it may be easy to see whether actual charges for such items are included or not.

MR. NICKERSON. I suppose number nine (bad debts) is included in these expenses because municipal plants have especial powers for collecting their rates. They don't have to take the ordinary commercial risk that a privately operated plant does.

THE PRESIDENT. Yes, and then the question comes whether or not provisions for future losses from bad debts have been correctly taken care of.

MR. ALBEE. On the other hand, along that line, isn't there a temptation, in the case of a municipal plant, to be easy with clients who are fellow citizens and who control votes, as compared with a private organization that is endeavoring to get all the revenue possible?

THE PRESIDENT. I think that is a good point and one which should be properly considered.

MR. HALL. In other words, it is, I suppose, almost impossible to compare the operation of a privately managed corporation with that of a municipal plant, because of the entirely different administration which a municipal plant would have, as compared with that of the private corporation.

THE PRESIDENT. It is that very fact, it seems to me, which the uniform standard schedule should bring out. If there are financial advantages one over the other, let them be thoroughly brought out. If the cost of municipal operation is in excess of private operation, let it be brought out, and let the citizens see whether public operation is worth the difference. It may be worth the difference a great many times over, but let them see exactly what the money cost is. That is the point we want to bring out by a standard schedules. Let the facts be made clear. Let there be publicity. Let all the financial matters appear on identical lines and thus let the citizens see whether or not it is worth while to continue a municipal plant. Then there is the whole question of public corruption, which must come in. There are, therefore, these other and broader views which must be considered after the financial statement has been made, but first let the financial statement be made strictly on its merits.

MR. HALL. Right here, Mr. President, it seems to me that perhaps—I don't want to anticipate possibly what you may have in mind, but my neighbor on my right has some matters that I would like to hear in regard to this very point we are discussing.

THE PRESIDENT. I should be very glad indeed to call upon Mr. John S. Hodgson, ex-editor of the Municipal Journal, a gentleman who is conversant with matters of public service on the other side of the water.

MR. JOHN S. HODGSON. Mr. President and Gentlemen: I am obliged to all of you here for the opportunity of not only adding my mite to the present discussion, but, what is of more personal importance, of learning something for myself from those assembled here. The question of depreciation, in particular, appeals to me for reasons known at least to a good many that I see before me. I might say it is perfectly well known to these that there are very many weak points in the whole problem and operation of what is known as municipal ownership, but amongst all those weak points I think the weakest of all, as exemplified in particular in Great Britain, is that of depreciation, and it is an encouraging sign that a meeting like this should be found putting the horse in its proper position in regard to the cart and discussing that question first before embarking to any considerable extent in the United States, in that particularly perilous field. As compared with Great Britain, the United States has done comparatively little, but in Great Britain there has been a great deal done, with results which are now becoming apparent in the present unfortunate situation. Amongst these, I look upon neglect of municipal accounts as the most pregnant cause. It is probably a familiar story to most of those here that a Parliamentary return, issued in 1903 and known as the "Fowler Return", dealt with something over a thousand public utilities operated by municipalities and other local governing bodies in England and Wales. They represented a total investment of about $606,000,000, and the average annual sum set apart of that huge total, for depreciation, represented something less than one-sixth of one per cent. That, of course, I need not say to any of you here is an utterly insignificant and inadequate amount. Conditions of that kind led to the appointment of a joint parliamentary committee of the two Houses to consider the principals which should govern powers given to municipal authorities for industrial enterprises. They devoted special attention to accounting and auditing, and recommended the abolition of the existing methods of audit in England and Wales. There was a reason for not including Scotland, because Scotland is already better provided for. They also recommended that auditors should be members of the Institute of Chartered Accountants or of the

Incorporated Society of Accountants and Auditors, and that their appointments should be subject to the approval of the Local Government Board. That, I may say, is a department of the national government, having superior jurisdiction over the local governing bodies, to an extent. I may say also, quite unknown on this side of the water. Further, that auditors should hold office for the term of 5 years, be eligible for reappointment and not liable to dismissal without the sanction of the Local Government Board.. As regard public utilities owned by local governing bodies, it was urged that auditors should certify that every charge which each separate undertaking ought to bear had been duly debited. The report also emphasizes the fact that each trading concern should be dealt with as a distinct account, so that the payment of amounts, such as expenses for damages, through the general tax fund of the city, as mentioned by your President, would not be allowed. The report goes on to state that auditors should be required to express an opinion as to the necessity of reserve funds or of amounts set aside to meet depreciation and obsolescence of plants, in addition to the statutory sinking funds, and of the adequacy of such amounts. That is to say, it is not sufficient that there is a fund for depreciation, but the auditor should have the distinct power of saying whether it is sufficient or not. I give these data as showing how important the subject has become, and also as indicating the gravity of the situation which has arisen in England, this being, as I believe, largely due to the neglect of the depreciation fund, and to the practice of applying to the relief of local taxation sums which ought to be carefully kept as a part and parcel of the municipal trading account. I give you one flagrant example of the neglect of this precaution in the case of a plant which was transferred from a former company to the municipality. Take the city of Leeds, with a population of about 465,000. The supply of electric light began in 1893 by a company. The company's charter was framed with the express intention that at some time or other the city would want to transfer it to itself, and it was therefore necessary to establish, right from the first, the amount of capital invested and the whole of the charges debited against the undertaking, the idea being that, when the time came, the city should pay for each £100 of capital expended by the company, £100 of 5 per cent. irredeemable stock of the city of Leeds. In order to avoid complications later on, the Board of Trade—another government department—was asked to appoint an auditor who should have power to amend the company's accounts, and to transfer items of revenue to capital and items of capital to revenue, as he saw fit, and he was also empowered, which was very important in this connection, to make such allowances for depreciation as he might determine. Under these powers, he fixed as depreciation charges, for buildings 1 per cent., machinery 5 per cent., mains 1 per cent., transformers, etc., 5 per cent., motors 7 1-2 per cent., electrical instruments 5 per cent., office furniture

10 per cent., amounts which were soon found by the directors of the company to be utterly inadequate. There was not sufficient experience at that time to be a guide for the company or for the auditor, but these rules worked out in 1897, the last year of the company's operations, at 2.43 per cent. on the total capital expenditure. The directors had already created a special reserve fund which more than doubled what I call the compulsory fund of the auditor. But to take results. The company was bought out by the city in 1898, and if the compulsory allowance had been maintained by the city—I am not speaking now of the voluntary allowance by the directors of the company—the contribution for the year 1904-05 would have been $120,000, or 2.64 per cent. on the outlay up to that time. As a matter of fact, the sum actually available for depreciation under the city's method of control was only $1400. I don't think I can give you a better example of the difference between the careful and trustworthy operation of a plant by a company, and the haphazard method which a city is only too likely to adopt when it finds itself obliged to make some return to the taxpayers in redemption of pledges too hastily given. I ought to add, in this case, that the city, in order to meet its statutory obligation of paying for the plant in 5 per cent. irredeemable Leeds stock, had to pay the company £170 for every £100 paid out, at market value.

On the general subject I wish to say this: That the present unsatisfactory condition of municipal ownership undertakings in England, which is only now beginning to be found out, is due in part to the neglect of the depreciation fund, and also to the loose method of keeping accounts generally, and on that ground I mention it here, because if there is one thing more than another to be guarded against in municipal ownership, it is lax accounting. Owing to the facilities afforded, even in England, where it is not too broad a statement to make that corruption is unknown, there have been opportunities for covering up accounts which, had they seen the light of day in time, would have earlier resulted in the marked change in public opinion now making itself felt in that country. (Applause.)

THE PRESIDENT. I am sure we are very greatly obliged to Mr. Hodgson for his most interesting addition to our discussion. I will now ask Mr. Forrest E. Barker, Chairman of the Gas & Electric Light Commission of Massachusetts, to speak to us, if he will be so kind.

MR. BARKER. Mr. President: Really this is quite unexpected so far as I am concerned. The invitation that I received mentioned several gentlemen who were to speak at this time, but it contained no intimation that I would have to do anything except to listen and be instructed, and I came for that purpose.

Being called upon so suddenly I am at a loss to know what phase of the subject I ought to try to consider in the brief time that is open to me.

As you well know our Board has a most intimate relation to more than a score of municipal plants in this State engaged in the business of supplying gas or electric light or both, much more intimate than the Local Government Board in England, to which our friend has referred. It probably sustains really a more intimate and paternal relation to municipal plants than any other board anywhere else in the world.

I was much interested in your President's explanation of the system of accounting for municipal plants. It has been my privilege to discuss with him many of the problems involved, very much to my personal and I think to the public advantage. We generally find ourselves in agreement and I do not know that we have ever found ourselves seriously at variance.

There are one or two things which I think I would like to emphasize, to which he pail little or no attention. I do not know how germane they may be to the precise subject which you are thinking most about tonight, yet they may properly be referred to in any consideration of municipal plant accounting—the capitalization of municipal plants and depreciation feature.

In the supervision of municipal plants our effort has been to insure their carrying on upon similar lines and a similar basis to private plants; that is to say, that such an enterprise in the hands of a municipality should be a business enterprise and not a political one. The whole theory of our law under which the municipalities undertake this kind of work is that they must carry it on as a business proposition and not merely as a political scheme. Our highways are maintained for the public convenience purely and there is no attempt to get a revenue out of them, no attempt to provide in any way for the cost of their maintenance except from the general tax levy. The supply of light by a town for the use of its inhabitants is largely for private convenience and the law in this Commonwealth contemplates that the cost of its operation shall be provided in an entirely different way and that the private service shall return to the municipality a revenue proportionate to the service rendered. It is therefor important to determine in the first place what should be considered the capital invsted. I think a very brief study will convince any one that the capital invested is not confined, as a practical matter, to notes or bonds representing the money borrowed, but that it comes largely from another source, to wit, from the tax levy. We have been virtually compelled to take the position that all funds raised directly through the tax levy and put into the construction of plants together with the borrowed money constiutes the investment, the capital, so to speak, invested by the municipality in the enterprise.

I have noted a frequent tendency in discussing matters of this kind to refer only to notes and bonds as constituting investment or as the amount to go on the liability side of the balance sheet, but we have found it necessary to put on that side of the balance sheet all the money provided for the purposes of construction either directly or indirectly, if it has been raised through the tax levy, that being the contribution of the town which corresponds directly to the payments by shareholders for the stock of a private company.

We regard it as a serious mistake to allow the amount of invested capital to be governed by the actual indebtedness of the town on account of the plant. If you do that, the time will come when you will see that the town has no capital invested because the debts will be paid and paid, according to our experience thus far, not out of income from the business but out of the pockets of the taxpayers.

I notice in the proposed scheme there is a provision for doing a lot of things with the income but I have yet to find a plant where those things could in fact be done out of income and I suppose they may possibly be put in there for the purpose indicated by your President to emphasize the distinction between municipal and private administration.

The problem of depreciation is not only one of the most important but, as generally treated, absolutely the most uncertain and indefinite. Fortunately the present law in this State, after ten years' experience with municipal plants without such legislation, does require that the fact of depreciation be given clear and substantial consideration by the towns. This has been true, however, only for a year or two. We shall exhibit in our forthcoming report for the first time data showing how that law has been recognized by the towns. Some of them have given it very little consideration, but most of them have acted under it faithfully and effectively.

The legislature apparently assumed to determine how much the depreciation ought to be. I used the word "apparently" advisedly. That some figure should be mentioned seemed imperative and it was probably equally imperative in view of the conditions surrounding legislation that the figure mentioned should be the minimum amount. I say that in sincerity because, as a practical matter, that which was to be made obligatory upon all towns was necessarily a minimum and we must recognize, I think, the very great difficulty of establishing a safe ratio for determining depreciation applicable to all towns alike. I used to think that it was a simple thing comparatively to make a rule about depreciation which would apply to all companies, but the more the question is studied the more certain it seems to me that if the safety of the enterprise is to be secured, the rate or ratio of depreciation upon whatever basis figured must vary with different plants. Sometimes the plants are constructed with a comparatively low initial investment with the expectation of a relatively rapid deterioration or they may be constructed with a high initial investment for the express purpose of making the annual depreciation lower. Then there is not only the depreciation due to the actual wearing out of material, but that which is sure to result from the progress of the art in which the business is based, and to that other development of especial importance in all public service corporations due to the changed relation of the volume of the business to the capacity of the existing appliances which through that very fact may become so ill adapted to the existing conditions as to be either useless or too expensive to be longer used. Depreciation due to this last feature is oftentimes of great importance, must necessarily vary in different communities and is one of the most difficult things to forecast that is connected with the enterprise. I refer to these things as indicating some of the difficulties entering into this problem of depreciation.

Although we rarely hear the word defined, I suppose that depreciation is intended to cover all those things not provided for in current operations yet which, beyond the control of good management, tend to impair the capital. If that be a correct definition the term is a very broad one and by its very breadth suggests the difficulties of fixing for general application the ratio for its calculation. Something, however, must in every business be provided and our State has wisely required this in municipal plants, although it may have required only a minimum.

I don't think I ought to take any more of your time. The question of municipal accounting presents many administrative difficulties. We find it necessary to keep in the closest touch with the accountants in all of these municipal plants, partly because of a tendency in many of them to employ a grade of help which has had little or no experience in accounting. You know public officers, in this State at least, generally receive a compensation which does not compare favorably with that paid by private companies for a similar grade of work and we must deal with these accountants as we find them. Even where they have the best of intentions they need active supervision, direction and assistance and unless they have that the information which they give under the inquiries that are thrown at them will vary markedly from the standards intended. If we are to have reliable data not only a schedule and a form of instructions are necessary but constant and effective supervision.

Some of these suggestions indicate the difficulties surrounding municipal as compared with private administration and emphasize the important work now being done by the various associations of accountants in the different States in their efforts to lift municipal accounting to a higher plane than it has ever yet attained, and so far as their efforts are successful it will be a godsend to municipal administration. (Applause.)

THE PRESIDENT. I am sure that we are all greatly indebted to Mr. Barker for his most interesting address. The more so as he was called upon without preliminary notice, as he stated. The gentleman I desire to call upon next has had very practical experience in one of our greatest corporations, the New England Telephone and Telegraph Company, and I desire to ask Mr. Longley if he is willing to favor us and give us his ideas in regard to general methods of handling depreciation and particularly, if he is so inclined, his views in relation to setting up a deferred maintenance or depreciation reserve as a practical accounting proposition,—Mr. E. W. Longley, auditor of the New England Telephone and Telegraph Company.

MR. LONGLEY. Mr. President and Gentlemen: I have been so fortunate as to receive an invitation here tonight because I hold the position of Auditor of the New England Telephone and Telegraph Company.

You see there are compensations for holding office in a public corporation. It may be debatable, in these strenuous days, whether the disadvantages of holding such office do not outweigh the advantages, but so good a dinner, and so distinguished a company, weigh heavily in the credit balance.

Although an officer in the Telephone Company, I regard my expressions tonight as personal rather than official.

Reserves are a part of the machinery of bookkeeping, to preserve the regular payment of returns to investors. All expenses, except those for construction, must be paid at some time or other out of the revenue derived from the money invested.

Some expenses may be paid this year, but much does not become payable until next year or some year following. Properly the revenue of an apparently good year bears its share of carrying the burden of the expenses of a poor year.

The bookkeeping methods necessary to establish proper reserves are by no means well established, and I believe there is urgent call for a standardization of methods for creating reserves to cover depreciation.

In my opinion, the public corporations are not only willing but anxious, to find and adopt bookkeeping methods that will be recognized by investigating bodies and the general public as sound and equitable. If it is true that reserves have been built up in some cases along pretty broad lines, it is probably fair to grant that more exact methods would have been followed if proper standards have been generally established and recognized.

Sound business policy calls for proper *depreciation* reserves. Depreciation and reconstruction are very similar terms, the difference being that one is an anticipated expense and the other an expense already incurred.

Depreciation is the measure of the life of the plant that has been spent. Wood decays and metals rust at pretty well-defined rates of speed; that is, they suffer the results of age, much as a human being does.

When the life of either an inanimate or an animate object is half spent, it may still be able to execute its greatest functions, but nevertheless life is half gone.

The normal life of a telephone plant or human being is shortened by accidents, and the life of the plant may be still further shortened by obsolescense.

The life of the plant is determined by observation, much as insurance men determine the probable length of life in human beings. Having determined the probable life of the plant, the percentage of its whole life that will be lived in a single year may be figured out, and this percentage indicates the progress of depreciation that should be provided for each year.

If it were possible to keep the plant new by the yearly expenditure of money corresponding to these percentages, no reserves for the replacement of plant would be necessary. The yearly expense as fast as incurred would be charged to reconstruction, and every year the plant would be as good as new.

In practice, however, only a portion of the plant can be renewed from year to year. The occasional pole which has broken down because of decay is replaced, just as the man in an army who dies of sickness is replaced, but the majority of the poles in the line live out their natural lives. When they cannot stand any longer, the whole line must be replaced at a cost as large as the original cost of the line.

The original cost of the line was paid out of the receipts from sale of the Company's stock, but the renewal cost must be paid out of the revenue derived from the original line.

The revenue derived from this line each year, above the cost of current repair and operation, is not properly a net revenue, since this revenue must also provide for the construction of a new line when the original line is too old to earn money.

It is my opinion that reserves sufficiently large to provide for the construction of new plant when the old plant is too old to earn money should be created from the revenue of the plant before it has reached old age and is ready to die, and that such reserves should not only be permissable but mandatory.

The New England Telephone and Telegraph Company operates in four States, Maine, New Hampshire, Massachusetts and Vermont, with an invested capital of over $30,000,000. Notwithstanding the fact that 63 per cent. of its exchange wire is underground, and 80 per cent. of its exchange wire in cables, the exposed portion of its plant is very large, and always must be.

The need of proper reserves to provide for contingencies was never more vividly impressed on my mind than yesterday, when I sat in the General Manager's office and listened to bulletins brought in from time to time. They were like the following:

"Burlington 10
About 5 inches snow on ground Tuesday morning, several inches more came last night. Mercury at freezing point but sun is out and snow falling from wires and trees. But little trouble, mostly near White River Jct."

"April 10, 1907.

Trouble Report 2:30 P.M.

Boston has left 40 troubles mostly towards the North Shore.
New Bedford, Portland, Concord—all troubles are cleared up.
Bangor has 5 troubles. It is snowing there—heavy winds—prospects for a bad night.

Lewiston has	3	troubles
Lowell	4	"
Worcester	9	"
Springfield	12	"

White River Junction—20 troubles
Troubles are all well in hand and most of them will be cleared up by tonight."

The situation was comparable to that of a General receiving reports of the progress of a battle from different points of an extended field. A drop of one or two degrees in the temperature and a slight increase in the speed of the wind were liable at any moment to bring reports of falling wires or pole lines, at any point in these four great New England States, and the General Manager had to be prepared to gather his repair gangs and rush them to the front, with great emergency supplies, at almost a moment's notice.

Here were most of the elements of a serious sleet storm that might entail expenses amounting to hundreds of thousands of dollars. Last year at this time such a storm occurred, and I have known it to happen that twice in a single year sleet storms occurred accompanied by high winds that resulted in the destruction of very great portions of the property of the telephone company.

In such times of probable or actual calamity, the reserve for depreciation protects the Company like the great dam that was built on the Merrimac River, so high above high water mark that it was long considered a folly.

But the day of its use came, as its builder knew that it would come, and the great flood was held in check without loss to the interests of the city.

So the telephone reserve stood in this recent threatened storm, untouched at the time because unneeded, but ready to meet the load of an emergency which seemed immiment, an emergency which was as sure to come some time as was the flood on the Merrimac River, and which I believe had to be provided for from deductions made from the revenue of the Company from year to year, so that the business might continue without interruption to the payment of fair dividends or needed renewals. (Applause.)

MR. ALBEE. This question occurred to me during Mr. Longley's very excellent address: we are all directly interested in telephone companies and their chargs, and I don't want this qustion to be taken as being at all impertinent or out of the way, but the thought occurred to me when he spoke of depreciation reserve standing as a great dam against that injury, as to whether it was the custom of the telephon ecompanies to charge that extraordinary expense against that reserve, or whether it customarily goes against the ordinary maintenance expense, and so comes twice out of the people who pay the telephone rates?

THE PRESIDENT. It should be evident that in any case depreciation must come out of revenue, no matter whether charged against what has been laid aside in prior years or whether charged against maintenance in any particular year. The only question then would be, whether it is a fair proposition to distribut depreciation by charges against revenue for a series of years and thus build up the dam before mentioned, and then charge actual expenditures against this reserve, rather than to charge actual expenditure against the particular month or year in which that expenditure occurred? If you do the latter you necessarily throw your monthly comparisons out.

MR. ALBEE. My question was not, perhaps, along just that line. I think the method of charging up from year to year certainly is the proper one, but the particular thing I had in mind was, whether or not the extraordinary expense entailed by these storms was to come out of the maintenance expenditures for the particular time when the storm occurred, or whether it would come against the reserve fund provided for very contingency, and so relieve the rate payers from either continued high rates or even increased ones.

THE PRESIDENT. As I understand it, the actual expenditures would be charged against the maintenance reserve, and I would like to ask Mr. Longley if that is his view.

MR. LONGLEY. I think that would be perfectly sound to make the charge against the reserve. Nevertheless the result would be the same, if reconstruction charges, instead of being made against the reserve account, are taken out of the current year revenue, because, provided we have that reserve at a proper point, we have it at a point that must be maintained, and if it was reduced too low by charges against it, we would have to build it up to its proper amount again, and these charges would have to come partly out of this year and partly out of the following year.

MR. ALBEE. That is diverted from the earnings and put aside to reserve for that purpose. If that extraordinary damage of $100,000 or $200,000 is going to come out of the maintenance charge, as well as setting aside for that year and the other years, the same thing, it seems to me, may thus be taken twice out of the revenue instead of going to the reduction of rates.

MR. LONGLEY. I should say it would be perfectly sound to charge that expense against the reserve amount. I should say that that was what the reserve amount would be for. I have said incidentally that we have not developed, as yet, the best methods of reserve, of our maintenance, or making our charges against it. We recognize the theory as an absolutely sound one. Take the very case of having an expenditure of $100,000. If you charge it against your reserve account, you would have $100,000 more in your earnings which you might divert or reserve to building it up to where it was before, whereas if you take it out of your current earnings you leave your reserve where it was.

MR. ALBEE. Suppose you did both.

MR. LONGLEY. It would be impossible to do both, but doing either brings about the same result at the end of a single year.

MR. HALL. Mr. President, I rise simply for the purpose of saying a word about what Mr. Longley said in regard to these allusions to catastrophies. He spoke of the storm, and I notice that the Edison Electric Light Company must have suffered in that storm considerably, because the electric lights in the City of Somerville were not burning until 8 o'clock that evening. That, I suppose, is a similar catastrophy to what occurred to the Telephone people. The Edison Electric Company were evidently sufferers from the same cause as the Telephone people.

THE PRESIDENT. I am sorry that Mr. Wallace of the Edison Company, who was expected to be here this evening, has not appeared. He told us he would certainly come if he were able. If he were here, he would give us an exceedingly good talk upon depreciation, because I understand that the Edison Company have made a careful study of the question of depreciation and are handling it perhaps as well as any public service corporation in the country. We should now be very glad indeed to hear from Mr. Robert Grant, the Auditor of the Consolidated Gas Company a gentleman who has had charge of the reorganization of the eight companes which are now brought together into the Consolidated Gas Company of Boston, and whose experience as an auditor in that great work would be of immense value to all of us if we can get him to tell us about it.

MR. GRANT. Mr. Chairman and Gentlemen, (Applause), I think this is hardly fair, for I came here with the distinct understanding that I was not to say a word. I think Mr. Chase could tell you fully as much about the eight old gas companies as I could, or care to. In regard to the question of depreciation, I think that we all believe depreciation should be allowed for and should be taken care of, but I do not believe that you can lay down a standard basis of depreciation, for this reason: If you do, you are leaving a loophole for some man. Take the superintendent of a station where there would be gas or electric lights. He has a certain pride in keeping up his station. If, in addition to that, you put a standard basis of depreciation which is to be charged against his station expense for a given year, that will all show, of course, against it. On the other hand, at another station you have a more unscrupulous superintendent who is looking for honor, and he don't care which way he gets it. The result is, he will keep his maintenance down, or he will cover the plant with red paint, the parts that show up more plain. His maintenance will be low; he will stand the same depreciation charge, and to an ordinary observer of figures, not perhaps being competent to examine into the position of the plant, he will get the glory, if there is any going. Therefore, I say that before any standard basis of depreciation is laid out, careful consideration should be given. I should hesitate to be one on a committee of any kind to lay down a law for depreciation. I do not believe that I want to say any more on depreciation. I think that covers it very well. I think that I agree with Mr. Longley too that every public service corporation in the country that is well and ably managed has this thought almost foremost, that is, the question of taking care of proper depreciation. I would like, however, to say a word or two in regard to the suggested form for standard schedule. The first, and third items, I think, are all right, but the minute you get beyond the third item, you get into deep water. The taxes in the first doubtful matter—we all know that the rate of taxation varies in different cities, the methods of assessment of valuation vary in different cities, and in making comparisons between one city and another city that should be taken into account, and in some cases which I know of it would make quite a large difference. Taking articles 7 and 8 together, insurance and damages, the principal item of insurance in public service corporations is liability insurance. A great many public service corporations today I think are carrying their own insurance and taking care of their own claims, and, I think, to good advantage. Now, the question of damages comes a good deal in line with what Mr. Longley brought up, and there is another loophole. Citing the storm which Mr. Longley has just spoken of, which cost $100,000, that was charged against extraordinary account—it don't make any difference what you call it. Included in that extraordinary expense of one or two hundred thousand dollars there must be usual and ordinary maintenance of that line or main, whatever it may be, which, if you charge off to the reserve account, does not appear in the maintenance account as it ought to. The result is, that maintenance will show less than it really ought to, for the reason that a certain portion—how much, of course, is hard to tell, perhaps impossible to tell—has been taken out of its proper channel and diverted into another. Another loophole, taken in connection with damages, is, that you leave the accountant, or whoever may be in charge, with a loophole in taking the position that his extraordinary expense does not apply on this year's business, should not be charged against this year's income, but should be charged against the extraordinary account or reserve account. The result is, that a statement of expenses will show a false instead of a true statement. All expenses that should have gone in there have not gone in. That also brings up the question—I will cite one case with which you are familiar. Take the explosion in the subway several years ago, which resulted in very large damages to the gas company, as we all know. The settlement of those claims extended over a period of years. Now, the question is, when those claims were paid and settlements were made—say there was one made this month under the schedule of accounts—should that be charged against this year's income, or should it go into a reserve account? If you continually put extraordinary items into the reserve account, the result is, that there is not any one year that will show true statements. Another form of practice has been to offset. To take, say a period of 5 or 10 years in making up statements, assuming that what did not go into one year went into the next. You could take 5 years' totals and get a very fair average. Now that, we all know, is not so, because the tendency is, today, if we have an extraordinary large expense, an extraordinary expenditure, instead of charging it into the current ordinary expenses, where it ought to go, we take the stand that it should go into reserve or profit and loss. Another item, the next line, is bad debts. Now, we all probably scrutinize the reports of the Massachusetts Gas Commission, and I venture to say that there are not two companies that treat their bad debts alike. They don't write off any, and then suddenly come to their senses, that they ought to write off a reserve to offset bad debts. That likewise applies in making a statement. That brings up the question whether they should be treated in the operating expenses, or taken out of that and turned into the revenue and included among the rebates, refunds and discounts deducted, leaving a net revenue, which it really is. I think, Mr. Chairman, that I have said all that I desire to say and have taken up sufficient time. (Applause.)

THE PRESIDENT. I think Mr. Grant has drawn very clearly to our attention the fact, which was presented to us by Mr. Barker, of the essential complexity and difficulty of handling depreciation matters; they can be looked at from so many different standpoints, and must be looked at from many different standpoints, according to the particular character of the industry which we have under consideration. I agree fully with Mr. Grant that we cannot lay down any general percentages for depreciation which would apply to the various industries. Each industry must be studied by itself, and percentages for depreciation in that industry can only be determined from experience in that particular line. The experience in the gas industry must be applied solely to it, and the experience in railways only to them. The advantage of having meetings of this sort and getting practical men like Mr. Grant and Mr. Longley to give us some of their experiences in these various lines is evident. The ultimate result of such meetings will be to gradually develop and bring about a body of information upon these questions which will result, as I see it, in very great advantage both to the public generally and to the public service corporations.

Now, I desire to call upon Mr. Whiting—the editor of the Inter-Nation, who has had a considerable experience in connection with handling such matters in his magazine, to wind up the discussion of the evening.

MR. WHITING. Mr. President, I am afraid my words will be very few. I want to say to Mr. Grant that there are others. He is not the only one. I had not the remotest idea of saying anything at all when I came in and I have heard so many things that have interested me, that I might well be thoroughly confused. I feel inclined to remark, however, that "He laughs best who laughs last," and I say that for this reason; about ten years ago I had occasion to write an article for a paper in Philadelphia, and was asked to write on trusts. I made the broad assertion then that depreciation accounts have been mostly overlooked in this country in the past and have not been properly attended to, and I find tonight that my statement is being substantiated. I feel sure that this has been less true with reference to private industries, where I think the element of self-interest enters more largely than it does in municipal corporations, and it is no surprise at all to me to learn, therefore, or to hear in the opinions of such gentlemen as Mr. Barker and others, that there is very great danger in connection with municipal operation. I think, beyond that, I have not anything to say, for this reason: That if I talked at all, I should run away from the specific subject, which I take is clearly a question of accountancy, and ramble off into discussion of the general question of the expediency of municipal enterprises. That, I feel perfectly sure would be out of place. There is one thing, though, that I want to ask Mr. Hodgson before he gets away.

When he told us that rather extraordinary story about that charge of $1400. I want to ask him if he could tell us what would be the tendency of the local rates of taxes in that year. The whole subject, it seems to me, is bound up with the subject of taxation and not much has been said about taxation tonight, but it is a very vital question in all parts of the country when the tax rate in all our towns is rising at such a fearful rate and that fact, in a town where there are municipal enterprises like gas, electric lighting, I suppose, is chargable frequently to those enterprises.

MR. HODGSON. I cannot say anything specific about the rate in Leeds at that particular time of year, but I can make the broad statement that it has become recognized in England, especially in Leeds and one or two of the larger cities, that increased municipal enterprise synchronizes with increased rates. That is a broad, sweeping statement, which is not difficult to maintain. Leeds itself has a debt of about $118 per head, man, woman and child, at the present time, just $3 per head more than the $115 which has been so much talked of in connection with London, and which was one of the dominating causes resulting in the overthrow of the progressive majority, and its replacement by a new body pledged to a very serious modification policy.

MR. WHITING. Has there been a marked increase in the rate of taxation, as far as you know?

MR. HODGSON. Yes, the taxation has gone up.

MR. HALL. Mr. President, I was in hopes that from our discussion here tonight, we might have arrived at some point which we all desire so much, that is, some absolute percentage of depreciation which might guide us in our calculations and enable us to arrive at a proper solution of the many problems which come before us in our accountancy experience, but I see from the discussion that it is about as I have looked at it heretofore, that this question of depreciation is not one that admits of being solved in that way, that it is governed by the peculiar circumstances that attend each and every corporation and organization, and the persons in charge of that particular corporation or organization are the only ones that can possibly decide intelligently the amount of depreciation that it might be desirable to reserve. Therefore, I suppose that we must content ourselves with the idea that as each proposition presents itself, it must be decided upon its merits.

THE PRESIDENT. I think Mr. Barker touched on that point very practically and very forcibly, when he said that the striking feature in Massachusetts, as distinguished from elsewhere, was the fact that the Legislature had established a mandatory charge for a minimum of depreciation, that there must be provided at least 3 per cent., and from that point up Mr. Hall's statement would certainly apply, but the establishment of that percentage as the minimum is a matter of very great importance.

MR. HODGSON. I think the Commission can make it more than 3 per cent., if they think it necessary.

THE PRESIDENT. Yes. Now, while it is getting late, we are all exceedingly interested in this proposition, and we should be very glad indeed to hear from the other gentlemen. I should like to hear from Mr. Tobey.

MR. TOBEY. Well, Mr. Barker has expressed my ideas exactly in the matter, and we work together on those lines.

THE PRESIDENT. I would ask Mr. Crocker if he could not say something to us on the question of taxation.

MR. CROCKER. There is just one word that I would like to say in relation to this schedule, and that is on the question of the loss of taxes on the municipal plants. There is no provision put in here by which comparison can be made on that subject. If it were only municipal plants and it were a question of comparison between one municipal plant and another, it would be of no importance and no interest, but when the comparison is, as it is our attention to draw it here, between a municipal plant and a private plant, then some provision of that kind ought to be taken into account.

THE PRESIDENT. I would call your attention to item No. 4, Taxes, which was intended to apply to just that matter. The absence of payments for taxes is shown by the schedule, and that point is very well shown in the tables here which cover ten municipalities and ten gas companies in Massachusetts. If you will look at Item 4, under municipalities, you will see there are no amounts there but in "Taxes" under the companies, you will see that there are considerable amounts entered. Schedules "D" and "E" are here referred to.

MR. CROCKER. If I take up this schedule as a layman, I find there are no taxes paid in a municipal plant. Then, I have got to go and find out what the loss of taxes is?

THE PRESIDENT. The theory would be, that a proper charge for taxes should be inserted in the municipal schedule, or else an amount equal to the taxes, (which should be so inserted), should be paid into the general revenues of the city.

MR. CROCKER. I should think there might be some subdivision under that heading, taxes paid by private company.

THE PRESIDENT. There should be an explanatory statement showing that in the case of a municipality the taxes which are lost—

MR. CROCKER. The statement should be made that the taxes are lost.

THE SECRETARY. In other words, it would be practically the same as a municipal plant which might be furnishing electricity to another part of the city, and the question should arise whether the municipality should not make a charge to that part of the city for electric current supply. On the same basis, why wouldn't it be perfectly proper for the city to assess the tax upon the electric plant and make it part of the levy, make the electric plant stand the expense?

THE PRESIDENT. I think we all agree that this should be done, and the hope of these schedules is to bring those things to the attention of municipalities, and particularly to the Board in control of municipal plants in such a way that ultimately they will accomplish these matters.

MR. HODGSON. It is a very important point; if you will look at the West End Street Railway report you will find that taxes were paid of $1,600,000 this last year.

MR. CROCKER. It is a good deal more than is turned over in any city in England for relief of rate.

MR. HODGSON. Oh, yes; relief of rates in Manchester is got by dear gas. They charge at 60 cents a thousand, instead of 28 as in Sheffield.

THE PRESIDENT. The only way in which these results can be brought about in municipalities and public service corporations alike, is by compelling them to set up their results on standard schedules, by mandatory requirements of the Legislature or of a State Board. Now, Mr. Stone, can't you give us a word? Gentlemen: Mr. Stone of the Worcester & Boston Line.

MR. STONE. There is not much question but what the same facts about telephone and gas companies would apply to the street railway. There would be quite a difference between the percentage of the high speed line and low speed line. There is one item on here that we probably wouldn't have to use. That is, "Bad Debts"; we get our money in advance.

THE PRESIDENT. Mr. Nickerson, you have something to say?

MR. NICKERSON. I would like to say that I have gone into a number of street railways, and without exception I have found the moving spirits very averse to any discussion of the question of depreciation; with so few exceptions, that they are practically nil. They don't pay any attention to it, and my experience is, that street railways have suffered more from one element of depreciation that was mentioned here tonight, namely, the introduction of new and improved machinery which practically renders old either obsolete or so expensive to operate that it is practically worthless, making it perhaps a more important item of depreciation for street railways to consider than in any other kind of manufacturing or transportation companies that I know of; but I have heard it very seriously contended by my very able friends connected with the transportation companies, that the value of the franchise increased in proportion to the plant's decrease, and therefore no depreciation was necessary. I find in a great many cases the question of depreciation is a question of policy, and not a question of scientific fact. If a company is making more money than the management desire the public to know, their ideas on the subject of depreciation are very liberal indeed, whereas, if the company is just barely squeezing out a dividnd which they desire to pay, depreciation becomes an absurdity! I think the steam railways from the beginnng took the same position exactly, and until they failed and were reorganized and got into an era of prosperity ———

A MEMBER. A la Harriman!

MR. NICKERSON.———they paid no more attention to depreciation. The railroads have been so prosperous lately that they charged all sorts of things to operation, and I believe the time is coming when the electric roads will take an equally conservative position, but they haven't got to it yet; they are too new. They have got to pay interest on the capital provided, and depreciation is still an iridescent dream.

THE PRESIDENT. Well, the evening is far spent, but I trust we have all had a pleasant and profitable time.

MR. HALL. I move the thanks of the Association be extended to the gentlemen who have kindly favored us with their presence and given us their views.

(This motion was seconded and unanimously passed.)

Adjourned.