

THE FINANCES OF THE CITY
OF NEW YORK

BY
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THE AUTHOR'S PREFACE

THE Finances of the Empire City of New York and those of the Empire Republic of China have many points of resemblance. For instance, the method of budget-making in New York City, some six years ago, was very similar to the method used in China under the monarchy, which consisted in granting budgetary appropriations in lump sums, without any definite and clear segregation according to functions and objects of expenditure. Again, the debt of New York City has been allowed to grow to its present size of over a billion dollars, without any attempt on the part of the city officials, until recently, to keep it in check by introducing scientific methods of administration, just as the national debt of China has been permitted to grow to its present size without any attempt on the part of the Chinese officials to check its growth. In the following monograph I have attempted to make a close study of the various phases of the financial transactions of the City of New York, as reflected in the \$841,000,000 of actual cash receipts and the \$844,000,000 of actual cash payments in 1913, and to explain how New York City is now financially maintained. Such a study serves to make clear the means by which the city has passed or is passing out of a financial chaos into a financial system, and affords a valuable lesson for China's benefit. Many of the scientific methods adopted by New York City in reforming her finances have been adopted by other cities in the United States for reforming theirs. Even the United States Government is now making a special effort to use the same methods of budgetary segregation as

are in use in New York City to-day. I see no reason why a system that admits of being copied and successfully installed by municipal and the federal governments in the old Republic of the United States, may not be copied and installed by the provincial and the central governments of the Young Republic of China. The details in each particular case of application may vary from locality to locality, but the principles underlying the details, so far as they are known to me, are practically the same. Even though it will not be easy for China to follow New York City's example, I believe this account of how New York City has been financially maintained, without even a fractional loss of her credit, will be of value to Chinese fiscal authorities, particularly if it be translated into the Chinese language.

For the sake of clearness, I have treated the subject under four separate topics, *viz.* : (1) scientific budget-making, (2) the system of taxation, (3) the administration of the city debt, and (4) the control of revenues and expenditures under the new system of accounting. All of these separate parts are, however, linked together into a continuous chain of logical reasoning, as clearly indicated in the introductory chapter. My chief disappointment is that although I have succeeded in treating the various phases of the subject as a unit, I have failed to describe fully the whole financial situation. This has been due in part, I must confess, to the fact that with so many factors to be taken into consideration, my mind has failed to comprehend all or perhaps even the most important of them. This failure occurred, notwithstanding the great encouragement of my major professor, Professor Edwin R. A. Seligman, who has not only given me valuable suggestions as to the improvement of my work, but has also kindly arranged to have the Series bear approximately eighty per cent of the total cost of printing this book. To him, therefore, is due my most cordial ack-

nowledgment. I cannot refrain from expressing equally deep indebtedness to another major professor of mine, Professor Henry R. Seager, for his excellent remarks made at a seminar meeting, which called my attention to a vital point I had overlooked, as well as for the detailed suggestions and improvements he has made in this book. I am also more than ordinarily indebted to the Hon. Shah Kai-Fu, Chinese Minister at Washington; Hon. Yang Yu-Ying, Chinese Consul-General in New York, and Hon. Francis Chang, Chinese Vice-Consul in New York, for their united effort in securing from the Chinese Government four months' extension of time in which to finish my work; to the Hon. Lawson Purdy, President of the Department of Taxes and Assessment, New York City; Hon. William A. Prendergast, Comptroller of the City of New York, and his assistants, Mr. Duncan MacInnes, Chief Accountant, Mr. Robert B. McIntyre, Expert Accountant; Mr. H. H. Rathyen, Auditor of Receipts; and also to the ladies and gentlemen in the Bureau of Municipal Research, especially Mr. Lindars, and to some gentlemen of the Department of Water Supply, Gas and Electricity, especially Mr. Hawkins.

YIN CH'U MA.

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TABLE OF CONTENTS

INTRODUCTION	PAGE 15
------------------------	------------

PART I

SCIENTIFIC BUDGET MAKING

CHAPTER I

SEGREGATION OF BUDGETARY ESTIMATES

A. Review of rule-of thumb budget-making: (1) lump sum estimates, (2) service data not obtainable, (3) cost data not obtainable, (4) indefinite statements or explanations accompanying the estimates; B. Necessity of double segregation; C. Segregation by functions; D. Segregation by objects of expenditure: (1) method of segregation, (2) the personal service group, (a) salaries and wages classified, (b) inequalities in salaries and wages, and (c) the standardization of salaries and wages, and (3) materials, supplies and equipment group, (a) definition and classification, (b) estimates rendered inaccurate by the decentralized system of purchasing supplies, (c) how purchases of supplies are made by the city (d) a general city storehouse, (e) standardization of materials and supplies, and (f) a central purchasing bureau; E. Alleged disadvantage of segregation; F. Advantages of segregation	25
---	----

CHAPTER II

PREPARATION AND EXAMINATION OF BUDGETARY ESTIMATES

A. Preparation of budgetary estimates: (1) method followed by departments in filling out budgetary salary-forms, (2) salary and wage appropriations from "mixed funds", (3) schedule forms for supplies, (4) actual cost obtained and (5) additional information required; B. Examination of departmental estimates: (1)	9
--	---

	PAGE
rôle played by the examiners, (2) justification of an independent examination by the examiners, and (3) problem of examination reducible to seven simple elements.	64

CHAPTER III

HEARING, VOTING, FUNDING AND ADMINISTERING THE BUDGET

A. Hearing the budget: (1) publicity through the press, budget news bulletins and the city record, (2) publicity through budget-exhibit, (3) public hearings on the estimates, and (4) the tentative budget and the hearing thereon; B. Voting of the budget: (1) the procedure of voting: (2) cutting down the yearly increases, (3) double responsibility of the elective offices, and (4) controllable and uncontrollable budgetary items; C. Funding of the budget: (1) transmission of the budget for funding, and (2) the means of funding; D. Administering the budget.	85
--	----

PART II

THE SYSTEM OF TAXATION

CHAPTER IV

THE REAL ESTATE TAX

Introduction; A. Separation of state taxation from local taxation; B. Relative burden of taxation on real estate and on personal property; C. Increase of annual taxes <i>versus</i> increase of real estate values; D. The Department of Taxes and Assessment; E. Block and lot maps; F. Land value maps; G. Separate assessment of land and buildings; H. Methods of arriving at land values; I. Hiding true consideration in deeds; J. Valuation of buildings; K. Buildings under construction not taxed; L. The two-column statement <i>versus</i> the three-column statement; M. Assessment at full value.	107
---	-----

CHAPTER V

OTHER TAXES

A. The special franchise tax: (1) purpose of the special franchise tax, (2) relation between special franchises and tangible property, (3) special franchise tax used as an offset, and (4) the net earning rule; B. The personal property tax: (1) personal property tax a	
---	--

	PAGE
failure, (2) viciousness of the personal property tax, (3) personal property tax uncollectible, and (4) substitution of special taxes for personal tax; C. Taxes on banks and trust companies: (1) the bank tax under the general property tax, (2) the special tax, (3) benefits of the special tax, and (4) comparison between the old and the new tax; D. The tax on mortgages: (1) undesirability of the old mortgage tax laws, (2) the taxation of mortgages unjust and undesirable, (3) the new mortgage recording tax, (4) good features of the mortgage-recording tax, and (5) alleged defects of the recording tax; E. The excise law	131

PART III

THE CITY DEBT

CHAPTER VI

ORIGIN, CLASSIFICATION, LIMIT AND COMPUTATION OF THE CITY DEBT	
A. Temporary loans: (1) revenue bonds, (2) special revenue bonds;	
B. Long-term financing: the funded debt; C. The debt limit;	
D. Computation of the city debt	155

CHAPTER VII

THE CITY BONDS

A. New York City bonds preferred by investors; B. The work of the bond house; C. Difficulty of marketing the city bonds; D. Issuing bonds in small denominations	178
--	-----

CHAPTER VIII

NEW METHODS OF FINANCING

A. New methods of temporary financing; B. New methods of long-term financing; C. New method of sale; D. New methods of maintaining the sinking funds: (1) how a sinking fund is established, (2) present sinking funds of New York City, (3) Equalization of burdens between present and future taxpayers, (4) Serial bond method v. Sinking-fund method, (5) Changes in sinking-fund investments	198
---	-----

PART IV

CONTROL OF REVENUES AND EXPENDITURES UNDER
THE NEW SYSTEM OF ACCOUNTING

CHAPTER IX

CONTROL OF REVENUE ACCRUALS UNDER THE NEW SYSTEM OF
ACCOUNTING

- A. Cost of installing the new system; B. Importance of accounting control over revenue accruals; C. Classes of revenue accruals; D. Control of revenue accruals creating accounts receivable: (1) control established through the accrual registers, (2) prebilling of taxes, (3) advantages of prebilling, (4) Control of cash payments by a system of internal checks, (5) auditing collections, (6) the control sheet and its purpose, (7) the general journal entries, (8) efficiency in the collection of arrears; E. Control of revenue accruals coincident with cash: (1) difference between accruals creating accounts receivable and accruals coincident with cash, (2) control of fixed charges, (3) control of non-fixed charges, 227 (4) control of receipts.

CHAPTER X

CONTROL OF WATER REVENUE UNDER THE NEW SYSTEM OF
ACCOUNTING

- A. The frontage rate and the meter rate; B. Accounting system in the frontage rate division; C. Present system of accounting for the meter rates; D. Adjustments; E. Control of collections; F. Control ledgers; G. Documents transmitted to the department of finance; H. Result of the new system of accounting 250

CHAPTER XI

CONTROL OF EXPENDITURES FOR SUPPLIES, MATERIALS AND
EQUIPMENT UNDER THE NEW SYSTEM OF ACCOUNTING

- A. Contract and open market orders; B. Invoices; C. Inspection of goods delivered; D. Vouchers; E. The tickler; F. Vouchers in the inspection division; G. Direct liability represented by the unaudited vouchers; H. Vouchers in the auditing division; I. Drawing, scheduling, signing and disbursing of warrants; J. Prompt payment of claims; K. Report showing the condition of each account 269

CHAPTER XII

CONTROL OF EXPENDITURES FOR SALARIES AND WAGES UNDER
THE NEW SYSTEM OF ACCOUNTING

A. Budget the foundation of accounting control over expenditures;
B. Data for the making of payrolls; C. Preparation of payrolls;
D. Recapitulation of payrolls; E. Restrictions over the expenditure for personal services; F. Purpose and significance of the restrictions; G. Payroll examination and payroll auditing; H. Payrolls supported by certificates 296

INTRODUCTION

LEAVING the corporate stock budget out of consideration for the present, I shall first speak of the annual tax budget of the City of New York, which now amounts to approximately \$192,000,000. In the past, much of this budget has been due to extravagance, waste, favoritism and corruption, as a result of the rule-of-thumb method of budget-making. Budgetary appropriations were made in lump sums, not clearly and sufficiently segregated by functions as well as by objects of expenditure. The salary and wage allowances were determined not on the pro-rata basis, but on the basis of what was spent in June. This enabled the departmental heads to defer some May pleasures until June and to anticipate some August obligations by meeting them in June. In this way, the June expenditure was greatly augmented and the allowances fixed on the basis of this expenditure far exceeded what the department really needed.

Again, it is a matter of common knowledge that the public money spenders used to keep the personal service expenditure at a low level for a part of the year, in order that the accumulated excess might be used to increase the salaries of their favorites just before the budget-making time. They also used the high salaries on the competitive civil service list, when vacancies occurred, to employ a large number of cheap employees, especially near election time. This had the effect of filling offices with incompetents and seriously impairing the *esprit de corps* of the staff. The present method of controlling the budget makes it very difficult, if not impossible, to use the public funds so freely,

because the personal service allowances are now made on the pro-rata basis.

The lump-sum method of budget-making may be illustrated by the following striking example found in the 1905 budget:

“For salaries of professors, tutors, and others in the normal college, and in the training department of the normal college; for scientific apparatus, books, and all necessary supplies therefor; for replacing and altering the college building, and for the support, maintenance and general expenses of the same—\$220,000.00.”

The entire budget for the normal college is thus made in one lump sum, not clearly segregated by functions and by objects of expenditure. There is no excuse for such an appropriation. Allowances made in this way might be expended for almost anything. No accounting and administrative control was possible, because money spent on automobiles might be paid out of this total budget, under the name of “supplies” or “general expense”. The terminology used is so indefinite and so comprehensive that the auditors of the chief financial officer could make no proper auditing. Even if the money was actually spent for supplies, then the departments should state exactly for what kind of supplies the expenditure was incurred, for the term “supplies” includes food supplies, forage and veterinary supplies, fuel supplies, office supplies, educational and recreational supplies, etc. If \$30,000 were spent for educational and recreational supplies for the normal school, perhaps no body would raise any objection; but if the same amount were spent for office supplies, every reasonable man would surely ask for an explanation. It is well-nigh impossible properly to audit a bill involving an expenditure of \$30,000 for supplies, unless the particular class of supplies is indicated. This defect, to which might be attributed much of

the waste and corruption in the past, is now remedied by the scientific method of segregation, which makes it possible to audit, and therefore to control, departmental expenditures and at the same time furnishes an adequate basis for making appropriations. Requests for money for various indefinitely-stated purposes are now no longer granted. In a word, the lump-sum budget has now been replaced by a well-organized and scientifically segregated budget.

The annual budget having been made, the next step to take is to execute it or to "fund" it. The principal means of "funding" it is by taxation, which makes the theme of the second part of this book. The main source of revenue in New York City is the real-estate tax, the burden of which falls almost equally on all real estate, in consequence of the application of scientific methods of assessment. For instance, all real estate in New York City is now assessed at "full value", which is the best standard for valuations that has ever been found in the United States. If this standard were not adopted, the assessors would have nothing to guide them. Consequently, one parcel of property might be assessed at 50 per cent of its full value, another at 60 per cent, and a third, at 80 per cent. The burden of taxation would not therefore fall upon all parcels with equal weight. The adoption of "full value" as the standard removes to a large extent the inequalities that formerly existed among the taxpayers.

Not only in the taxation of real estate, but also in that of personal property, have wonderful improvements been made. When personal property was assessed under the system of general property taxation, a large proportion of it could not be reached by the ordinary method of local assessments. Theoretically, all forms of personal property were taxable, but practically only the tangibles, such as horses, cattle, merchandise, machinery, etc., were actually

taxed. The intangibles, such as promissory notes, book credits, mortgages, corporate bonds, etc., generally escape taxation by hiding. Those who do pay taxes on the intangibles are the ignorant, the helpless and the extra-conscientious. In a word, the general personal property tax proved so unsatisfactory that New York has, within the last twenty years, gradually abandoned it and developed a number of special taxes to take its place. These special taxes are imposed on special kinds of personal property. Formerly, practically all forms of personal property were assessed under the general property tax by the different localities at the different local rates. Now the state reserves to itself the special taxes, leaving the real-estate tax to the localities. The proceeds of some special taxes, including the taxes on banks and trust companies, the mortgage tax and excise tax, are, however, distributed between the state on the one hand, and the cities and counties on the other, by virtue of the fact that the personal property assessed is of a distinctly local character or the value of the property springs from strictly municipal conditions. As an illustration of the superiority of the special taxes over the general personal property tax, we may take the tax on banks, which was formerly treated under the personal tax law. As the shares of stock were in the possession of individual shareholders, they could easily be concealed and the law could not reach them. The present law imposes a tax of one per cent, not on the shares of stock which can be hidden, because they are in the possession of the shareholders, but on the capital, surplus, and undivided profits of the bank, which cannot be hidden.

From the above, it is clear that the system of taxation, as existing in New York City, is fairly satisfactory. The only flaw I find in it is the "special franchise" tax, which has become a perplexing problem not only to the court and the

tax authorities, but to the public service corporations as well. A partial discussion of this tax is found in chapter five.

It should be noted that the annual tax budget does not represent the entire amount of money expended in the year for which it is made. In addition to the tax budget, there is now prepared a corporate stock budget every year, subject to the same process of segregation as the tax budget. The corporate stock budget is funded by issuing long-term bonds, generally of fifty years, out of the proceeds of which are paid the charges for permanent improvements, such as the subways, the aqueduct, docks and ferries, school houses, the paving of streets, etc. The eagerness of the people of New York City for these public improvements, as exhibited within the past thirty years, is the chief cause of the present billion-dollar debt, which is discussed in minute detail in part three.

The issue of fifty-year bonds to finance such enterprises as subways, aqueducts, docks and ferries, etc., is justified on the ground that they are self-sustaining, whereas to pay for school houses and street paving by issuing long-term bonds is justified on the ground that the charges should be spread over the years benefited. During the period of loose administration, however, it had been the practice in New York City to issue fifty-year bonds for ten-year street paving. The consequence is that the burden of paying interest still continues, while the streets have ceased to be of any use to the community. This policy has now been changed by proper legislation, authorizing the issue of ten-year bonds for ten-year streets. The City is now planning to replace the fifty-year bonds by ten-year serial bonds for corporate stock purposes, but special legislation is necessary to make this scheme operative.

The popular demand for present expensive improvements,

with no expense to the present taxpayers, but with a heavy burden thrown on their posterity, has been fortunately and wisely checked by the constitutional limitation of the city's indebtedness to ten per cent of the assessed valuation of its real property. Most of the questions as to what portion of the city's debt should be considered as subject to the constitutional limitation and what portion should not, have been settled and the margin of doubt has been reduced to a minimum.

The financial interests of the city are protected not only by the issue of ten-year bonds in the place of the fifty-year bonds, and the constitutional limitation, but also by new methods of financing the city's enterprises to the city's great advantage. To illustrate, it has been the practice of New York City to go into the market for long-term bond sales more than once a year. But the City often found itself greatly embarrassed, because money was scarce in the market or because bankers could not dispose of the city bonds. This method was very costly to the city, because the city was compelled to pay high rates. For these reasons, the present comptroller adopted the single-sale method, which means that the city will not go into the market for long-term financing more than once in a year. This new method has proved beneficial to the investing public as well as to the city, because it does not make a pressing demand upon the money market when money is "tight" and at the same time relieves the city from the necessity of paying high rates. A detailed discussion of this method is found in chapter eight.

The annual tax budget having been first made, as discussed in part one, then executed or "funded" by taxation, as discussed in part two, and then supplemented by the long-term financing, as discussed in part three, the next two questions which are answered in part four, are: (1)

how the taxes or other revenues collected should be controlled so that there will be no leak or theft; and (2) after the money is collected and ready for use, how should the spending of it be controlled, so that money appropriated for one purpose, or for a lawful purpose, will not be expended for another purpose or for an unlawful purpose? In fact, New York City has gone a step further. The control of expenditures is so established that it is now almost impossible for the departments to spend more than what is allowed in each account. The methods of establishing a control over both revenues and expenditures, under the new system of accounting, are fully discussed in part four.

I have thus discussed the finances of the City of New York from the time that the budgetary estimates for the coming year's appropriations are analyzed up to the time when the money appropriated is expended. The four parts of the book thus constitute an organic whole.

PART I
SCIENTIFIC BUDGET-MAKING

CHAPTER I

SEGREGATION OF BUDGETARY ESTIMATES

A. REVIEW OF RULE-OF-THUMB BUDGET-MAKING

I. *The Lump-Sum Estimates.*—The estimates of the amounts required for the operation of the various city departments have been, until recently, roughly prepared by the departments themselves, having little definite information to direct them. It is safe to say that their estimates were very unreliable. For instance, the salary estimates were very frequently fixed by the departments, not on a pro-rata basis, but on the basis of what is known as the "June Jump". Knowing that the next year's salary appropriations would be based on what was spent in June, public money spenders greatly augmented the June expenditure by deferring some May pleasures until June and by anticipating some July obligations by meeting them in June.¹ The salary allowances in the budget therefore far exceeded what the department really needed.

All the estimates which were submitted in lump-sums were not only unreliable but did not afford sufficient detail whereby the appropriating body might understandingly pass upon the necessity or advisability of granting the amounts requested. In most instances, no segregation was made as to the amount required for the several functions, sub-functions, or activities of a department. Furthermore, these estimates were not classified by the objects of expenditure,

¹ Bureau of Municipal Research, a pamphlet entitled, *How Should Public Budgets be Made?*, p. 4.

such as salaries and wages, other services, equipment, materials, supplies, etc. They appeared to have been made on the basis of what was expended during the previous year instead of upon the basis of particular needs for particular purposes. The history of budget-making in New York City reveals the fact that however reasonable an estimate might be, it would be cut down by a large percentage by the Board of Estimate and Apportionment, and the cutting has been somewhat arbitrary. Accordingly, when the commissioners made up their estimates, they added to them a considerable margin so that the requests, after they had been cut down and granted, would still be sufficiently large to meet the purpose they had in mind.¹

Under the old system it was a matter of great difficulty to restrict the commissioners to the use of money within the amounts as set forth in the budget, which is now carefully classified, since the lack of any detailed exhibit of the purposes and objects of expenditure rendered it almost impossible to keep the expenditure of public money in check and to ascertain whether or not the money appropriated was expended for the exact purposes for which it was requested and granted.

II. *Service Data, not Obtainable.*—These unsegregated estimates were undoubtedly due to the absence of scientific method in keeping current records. Thus, before the time of scientific budget-making, the current records and reports of the various departments did not lend themselves to furnishing ready and clear information as to the cost of maintaining each activity or function. In the short period of eighteen months, from January, 1906, to August, 1907, the New York Bureau of Municipal Research set itself the task of securing better methods of accounting for moneys

¹ *Budget and Citizen*, article on estimates, in *Outlook*, Aug. 28, 1909.

spent and for work done, in order that the cost of maintaining each activity might be readily compared with its result.¹ But in order to carry out this task, the City's hit-or-miss method of making its budget had to give way to the scientific method of budget-making as it is in use to-day. Realizing the importance of this step, the Bureau set out to prepare a budget for the health department, which would illustrate the principle of setting forth the various functions the departments proposed to perform and the amount of money it requested for conducting each function.²

To make a budget for the health department was, however, no easy task. The information gleaned from the various reports and records of service rendered was of no avail in budget-making. Even the annual report failed to give publicity to the significant facts; the items were couched in ambiguous phraseology, intelligible to no one except the clerk who compiled them; the different facts which were given were not brought into clear relation; "statements of fact, that related to each other, were scattered through the report," and they were not serviceable on account of the lack of an index. Similarly, the accounts of the department were so kept that information as to cost was not readily obtainable. They were classified not by functions, but by "funds" or appropriations, and it was therefore hardly possible to find the cost of each function or the comparative costs of all functions. To take an illustration, out of the school inspection fund, were paid not only the salaries of the medical inspectors of schools but also those of the school nurses and the summer corps, made up of physicians and nurses charged with the duty of mak-

¹ New York Bureau of Municipal Research, *Making a Municipal Budget*, pp. 5-7.

² *Ibid.*, pp. 5-7.

ing house-to-house inspection of babies, suffering from summer complaint, as well as teaching the mothers to take proper care of them.¹

III. *Cost Data not Obtainable.*—The record of the health department failed to show not only the service data, but also the cost data, which are equally important in making a scientific budget. Thus, from this record, it was impossible to tell which function or activity of the department was actually responsible for the money spent. In salary accounts, the salary of an employee might be charged entirely to a function for which he spent only a portion of his time. For instance, sixty-eight physicians were paid out of the "School Inspection Fund", despite the fact that they were never detailed to school inspection. Likewise in supply accounts, there was nothing to show what proportions of the supplies consumed were charged to different activities. It is true that sometimes the supplies were charged to the different activities for which they were bought, but even then, the accounts would not indicate the true condition of the expenditure, by virtue of the fact that there might still be in store a considerable quantity of supplies unconsumed. The books of the departments showed money paid out for supplies purchased, not for supplies used or consumed. From the financial records used in August, 1906, no exact and accurate data could be gathered as to the cost of different activities conducted by the health department.²

IV. *Indefinite Statements or Explanations Accompanying Department Estimates.*—Worse than all, these departmental guess-estimates, which originated in the ambiguity of records, were generally accompanied by very inadequate statements in explanation of the requests made. A typical

¹ New York Bureau of Municipal Research, *Making a Municipal Budget*, p. 10.

² *Ibid.*, pp. 10-11.

example of such a statement was found in the estimates of the health department for the year 1907. It is as follows: "The increase of \$39,600 for medical school inspection, as shown above, is requested to pay the salaries of thirty-two new medical inspectors, at \$1,200 each, distributed among the various boroughs, as indicated above, and of one additional nurse at \$1,200, in the borough of Manhattan. These are required to keep pace with the constantly growing school population throughout the City."¹ This statement did not give definite reasons for requesting thirty-two inspectors at \$1,200 each and one additional nurse at the same rate. There was nothing to show the result of the service rendered by the school inspector in the preceding year or years, nor was there anything to demonstrate the necessity of any additional inspectors.

B. NECESSITY OF DOUBLE SEGREGATION

A budget, in order to be an effective instrument of control over departmental expenditures, must be segregated as regards both the function to be performed and the objects of the expenditure. The majority of municipal functions are discharged through the rendering of personal services and the consumption of materials and supplies. When, for example, an appropriation is requested for the discharge of a particular function of the health department, say milk inspection, it is arrived at by taking up the different elements of expenditure involved in milk inspection, including salaries and wages, supplies, telephone service, repairs to plant, etc. This itemization of expenditures enables the public officials to check the use of funds originally intended for payment for personal services, for the purchase of sup-

¹ New York Bureau of Municipal Research, *Making a Municipal Budget*, pp. 15-16.

plies, materials or equipment, etc. New York City has first given attention, as we shall presently see, to controlling the use of money for personal services, supplies and materials.

Thus, functional segregation must be supplemented by expense segregation. If a health department receives a lump-sum appropriation divided only according to functions, such as child hygiene, contagious disease control, food inspection, etc., it cannot tell from such a mandate how much of the quota devoted to child hygiene is available for personal service, how much for materials and supplies, etc. In such a case, a tangled confusion of jumbled elements of expenditure would still exist. Similarly, if the department received a sum divided only according to objects of expenditure, such as salaries and wages, supplies, etc., it cannot tell from such a mandate how much food inspection it is supposed to perform or how much it is to spend upon child hygiene, etc. It is therefore clear that the making of a scientific budget calls for two important requisites, *viz.*, functional and expense classifications. They must go hand in hand, or else no good result can be achieved.

C. SEGREGATION BY FUNCTIONS

By functional segregation is meant the functionalization of appropriations or the separate statement of the amounts provided for each distinct kind of work. Scientific budget-making does not admit of the voting of lump-sum appropriations for a dozen different kinds of work. It does not allow the grouping together of appropriations for two or three different kinds of work when they are or can be independently performed and are susceptible of separate accounting. Without functional segregation is it possible to make a choice between allowing and disallowing, a choice always necessary to the making of an intelligent appropriation? Of course segregation by function can be carried to

undue lengths. It should be carried only so far as will enable the budget-makers, administrators and the public to gain from the budget a definite impression of the quantity of service which the governmental machinery is expected to perform and the amount of expenditure involved.

With this important end in view, the New York City budget has been classified into the following general functions or purposes:

1. General Administration.
2. Legislative—Board of Aldermen and City Clerk.
3. Judicial.
4. Educational.
5. Health and Sanitation.
 - (a) Department of Health, etc.
 - (b) Bellevue and Allied Hospitals.
 - (c) Department of Street Cleaning.
6. Protection of Persons and Property.
 - (a) Police Department.
 - (b) Fire Department.
 - (c) Armory Board, etc.
7. Department of Correction, etc.
8. Department of Public Charities.
9. Board of Water Supply.
10. Department of Water Supply, Gas and Electricity.
11. Borough Presidents.
12. Public Service Commission.
13. Rapid Transit Construction.
14. Department of Bridges.
15. Department of Docks and Ferries.
16. Department of Parks, etc.
17. Board of City Record.
18. Board of Elections and County Convassers.
19. Excise Commission.¹

¹ This classification is used in the quarterly financial summaries issued by the comptroller. See the *Financial Summary* for the quarter, Jan. 1, 1913 to March 31, 1913, p. 3.

Each of these main functions is divided into sub-functions or activities. Space does not permit an enumeration of all the sub-functions under each main function. For purpose of illustration, I submit the following analysis of the lines of activity of the department of health which constitute a direct public service:

- The Department of Health.
 - Administration.
 - General.
 - Care of Buildings and Grounds.
 - Vital Statistics.
 - Promoting Public Health.
 - Child Hygiene.
 - Infant and Milk Inspection.
 - Infectious Diseases.
 - Sanitary Inspection.
 - Food Inspection.
 - Laboratory Service.
 - Research and Vaccine.
 - Chemical.
 - Drug.
 - Hospital Service.
 - Willard Parker and Reception.
 - Riverside.
 - Kingston Avenue.
 - Tuberculosis Sanatorium.
 - Laundry.
 - Steamboats and Launches.¹

The duty of the department of health, as defined by the charter, consists of taking suitable measures to provide conditions looking "to the preservation of human life, or to the care, promotion and protection of health" in the City of New York. It is important to lay out a plan showing the

¹ Pp. 63-64, *Final Budget, 1914.*

lines of activity in which the department is engaged, so that the public may know what and how much service the department is rendering for the purposes above stated. Thus milk inspection is a health activity, recognized to be indispensable to the supply of pure milk; the crusade against tuberculosis is another; and the prohibition on the sale of impure drugs, meats and other foods, is a third. The department has a multitude of other activities which it finds it difficult to undertake, owing to the fact that the department's activities are necessarily restricted to the funds appropriated. It is fair to say, however, that the functions now performed by the department are a manifestation of its judgment as to the measures most directly related to the public health.

D. SEGREGATION BY OBJECTS OF EXPENDITURE

I. *Method of Segregation.*—Segregation by objects of expenditure or expense segregation is so intimately related to functional segregation that in discussing it in this section I shall often have occasion to refer also to the other. As stated in the preceding chapter, the diversion of funds to purposes other than those for which they were originally appropriated has heretofore been rendered comparatively easy, through lump-sum appropriations. The New York City budget of 1905 furnishes many striking examples of such appropriations, of which the following is one:

For salaries of professors, tutors, and others in the Normal College and in the Training Department of the Normal College; for scientific apparatus, books and all necessary supplies therefor; for repairing and altering the college building, and for the support, maintenance and general expenses of the same, pursuant to section 1142 of the Greater New York Charter—\$220,000.

The total appropriation for the Normal College of the City of New York is thus presented as one item.

There can be no justification for making such appropriations. They are so comprehensive and so indefinite that it is almost impossible to secure an adequate accounting and auditing control. Such general appropriations might be expended for almost anything. If reports of expenditures are grouped in such general terms, they would give very little information to taxpayers as to the actual costs.

Instead of allowing a lump sum to each department, a limit should be placed upon the amount of each appropriation which may be used for different objects, such as salaries and wages, other services, supplies, etc.; otherwise excessive amounts may be used for increasing the number and size of salaries or be diverted into the hands of favored dealers in materials, equipment and supplies. In other words, the amount must be segregated, in order to constitute a basis for administrative control, and if the segregation is done according to a uniform classification, to be adopted as a standard and not to be deviated from in the succeeding years, it may form a real basis for the development of statistical data affording comparison of much economic value. This plan is now followed by the City of New York, whose annual budget is so segregated as to reduce to a definite fixed classification all of the objects of expenditure for which the city spends money. These are generally called standard accounts. This having been done, the next step is to ascertain what public services are to be secured by the expenditure. These services, known as "functions", are shown in the annual budget grouped under departments and other organization units. For instance, under the health department would be grouped such functions as milk inspection, sanitary inspection, child hygiene, etc.

By means of such an arrangement, a clear and comprehensive picture of the various municipal functions and activities is obtained, and a basis is made available for judging intelligently the adequacy or inadequacy of appropriations. Not only are the appropriations for each function shown thereby, but also what amount of money must be provided in order that such functions may be performed.

As already pointed out above, the most important thing to be borne in mind in making such an arrangement, is that the classification or segregation shall be adopted as standard and not deviated from thereafter, on account of the increasing usefulness afforded by comparisons between functions, sub-functions, and objects of expenditure from year to year. It should also be made compulsory either by ordinance or by charter provisions for the appropriating officials to make the annual budget according to the standard adopted.

In addition to making possible comparisons between corresponding appropriations from year to year and to simplifying and improving the accounting, auditing and reporting methods, the adoption of a segregated budget makes it very difficult to request money for various and indefinitely stated purposes.

The classification under which the objects of expenditure of the City of New York are logically grouped in the 1914 budget is as follows:

A. Personal Service.

1. Salaries, regular employees.
2. Salaries, temporary employees.
3. Wages, regular employees.
4. Wages, temporary employees.

B. Supplies.

1. Food Supplies.

2. Forage and Veterinary Supplies.
3. Fuel Supplies.
4. Office Supplies.
5. Medical and Surgical Supplies.
6. Laundry, Cleaning and Disinfecting Supplies.
7. Refrigerating Supplies.
8. Educational and Recreational Supplies.
9. Botanical and Agricultural Supplies.
10. Motor-vehicle Supplies.
11. General Plant Supplies.

C. Materials.

1. Highway Materials.
2. Sewer Materials.
3. Building Materials.
4. General Plant Materials.

D. Equipment.

1. Office Equipment.
2. Household Equipment.
3. Medical and Surgical Equipment.
4. Live Stock.
5. Motorless Vehicles and Equipment.
6. Motor Vehicles and Equipment.
7. Wearing Apparel.
8. Educational and Recreational Equipment.
9. General Plant Equipment.

E. Contract or Open Order Service.

1. General Repairs
2. Motor Vehicle Repairs.
3. Light, Heat and Power.
 - a. Lighting streets and parks.
 - b. Lighting public buildings.
 - c. Power.
 - d. Heat.
4. Janitorial Service.
5. Transportation Service.
 - a. Hire of horses and vehicles with drivers.

- b. Hire of horses and vehicles without drivers.
- c. Storage of motorless vehicles.
- d. Storage of motor vehicles.
- e. Shoeing and boarding horses, including veterinary service.
- f. Hire of automobiles.
- g. Carfare.
- h. Expressage and deliveries.
- 6. Communication.
 - a. Telephone.
 - b. Telegraph, cable and messenger service.
- 7. General plant service.
- F. Fixed Charges and Contributions.
 - 1. Debt Service.
 - 2. Rents.
 - 3. Pensions.
 - 4. Insurance.
 - 5. Care of Dependents in Private Institutions.
 - 6. State Tax.
 - 7. Advertising.
- G. Contingencies.¹

II. *The Personal Service Group.*—(a) *Salaries and Wages Classified.* The salaries and wages of officials and employees represent a very large part of the city's budget, often ranging from one-half to two-thirds of the total. Until recently the appropriations for salaries and wages have been tainted with corruption and graft, as a result of the failure of the appropriating body to provide for adequate control over them. To prevent as far as possible the diversion and misuse of salary and wage appropriations, they are now classified, as shown above, into four general groups, viz.:

¹ *Scientific Budget Making vs. Rule of Thumb Budget Making*, p. 4.

1. Salaries, regular employees.
2. Salaries, temporary employees.
3. Wages, regular employees.
4. Wages, temporary employees.

Groups 1 and 3 represent the salaries and wages provided for employees employed during the entire year, irrespective of season or weather or the quantity or exigency of the service to be rendered. Groups 2 and 4 represent salaries and wages provided for employees employed for a short period of time, their service being dependent upon season, weather or the quantity or exigency of the work to be done.

Under Groups 1 and 3 are listed according to rank all the employees and the rate and amount provided for each class and grade. For example, the employees may be listed under salaries, regular employees, as follows:

Personal Service

75. Salary of the comptroller \$15,000.00
Salaries, regular employees

Executive and Advisory

76. Administration
Deputy comptroller, 2 at \$7,500..... \$15,000.00
Assistant Deputy Comptroller 6,000.00
Secretary to the department 6,000.00
Clerk to the comptroller 2,100.00
Stenographer to comptroller 1,500.00¹

Under wages, regular employees, the following appears in the 1914 budget:²

Automobile Machinist, 2 at \$4.50 per day (303 days) ..	\$2,727.00
Tinsmith, 1 at \$5.00 per day (303 days).....	1,515.00
Laborer, 2 at \$2.50 per day (303 days)	1,515.00
Total	<u>\$5,757.00</u>

¹ See *Budget, 1914*, schedule 76, p. 157, under Department of Finance.

² *Ibid.*, for Bureau of Licenses, schedule 262, p. 177.

Similarly, under Groups 2 and 4 would be listed each class and grade and rate of compensation. Instead, however, of showing the number of incumbents in each class, the schedule would show the time of service based upon the estimated "mean" days, weeks, or months required for each class and grade of service. For instance, the 1914 budget¹ lists the following items under salaries, temporary employees:

Bookbinder at \$1,200 per annum (8 months).....	\$800.00
Stenographer and Typewriter at \$900 per annum (55 months) .	4,125.00
Clerk at \$900 per annum (1 month)	75.00
Tabulating machine operator at \$780 (3 months)	195.00
	<hr/>
Schedule Total	\$5,195.00

And under wages, temporary employees, are listed the following:²

Stenographer at \$3.00 per day (18 days)	\$54.00
Clerk at \$3.00 per day (25 days)	75.00
Typewriting accountant at \$20 per week (8 weeks)....	160.00
	<hr/>
Schedule Total	\$289.00

Any such arrangement as this serves to give sufficient option to the departmental heads, because it admits of changes in the use of the appropriations for temporary employees according as the circumstances may demand. He could, for example, engage two bookbinders at \$1,200 per annum for four months, or four bookbinders at \$1,200 for two months, or, in the case of wages, two stenographers at \$3.00 per day for nine days, or one stenographer at \$2.00 per day for twenty-seven days. In this way he has a considerable range of choice in regard to the number of employees and length of service, provided the total number of

¹ 1914 Budget, schedule 88, p. 164.

² *Ibid.*, schedule 111, p. 165.

work units expressed in days, weeks, or months, be not exceeded. The granting of this discretionary power to the departmental heads lessens in a measure the objection that he is so tied down as to lose his entire discretion in the spending of the budgetary appropriations for employees. Another source of elasticity in the application of appropriations is found in the *inter se* transfer, which is later discussed.

(b) Inequalities in Salaries and Wages. Despite the excellent effects of the schedule segregation of salary and wage items in the budget, serious abuses continue to defeat the purpose of budget segregation, notably in the matter of increases of salaries. The method of making an increase is twofold: (1) the salaries of employees discharged or dropped are divided among the favorite employees, and (2) some employees are transferred from the budget to corporate stock payrolls where they are given higher salaries, which remain the same even if the employees are restored to the budget payrolls in the next year. Consequently inequalities in remuneration for similar services continue to exist, and become a source of great discouragement among the deserving but unrewarded. A preliminary investigation conducted by the Bureau of Municipal Research has developed the fact that in the clerical service comparisons of some 2,000 salaries showed a salary range of \$300 to \$2,100 in one grade where the same quality of work was performed; in another grade, from \$600 to \$2,400, and in a third grade from \$1,200 to \$4,000.¹ The demoralizing effect of such inequalities can hardly be overestimated.

With the above findings as a basis, it is estimated by the

¹ *Report of Committee on Finance and Currency, appointed by the Chamber of Commerce of New York, on the Progress of the New Accounting System in the Finance Department in the City of New York, Oct. 3, 1912, pp. 19-20.*

Bureau of Municipal Research that from \$5,000,000 to \$7,000,000 could be saved to the city annually if the salaries and wages were standardized.¹ The departmental estimates for 1913 showed an allowance for salary and wage increases and added force of \$20,000,000. The comptroller advocated that the increases of salaries and wages which would become permanent charges against the city should be postponed until the important readjustment involved in standardization is completed. In the making of the 1914 budget, the same policy was followed, except that several hundred salaries were increased for meritorious underpaid service.²

Salaries and wages cost the city about \$91,000,000 in 1912, or over 50 per cent of the total charge for operation, including some \$50,000,000 for the debt service.³ This sum for salaries and wages covers those paid out of the proceeds of the sale of corporate stock as well as those paid out of the tax levy. The reason why salaries are partly paid out of corporate stock is because the men receiving them may be engaged partly in construction work, which is charged to corporate stock. For example, an engineer drawing plans for a new bridge is paid out of the cost of the bridge which, being a construction work, is charged to a corporate stock fund, but the time spent on drawing plans to repair an old bridge is paid for out of the tax-levy budget. As payrolls represent the largest item in the budget, and as salaries have been fixed and are paid without any plan of equalization, it is obvious that the payrolls afford the greatest opportunity for increased economy and efficiency.

¹ *Report of Committee on Finance and Currency, op. cit.*

² Leaflet entitled *Budget Reminders and Remainders*, issued by the New York Bureau of Municipal Research, Nov. 1, 1913.

³ *Tracing Tax Increase to the Payroll*, issued by the New York Bureau of Municipal Research, July 26, 1913.

(c) **The Standardization of Salaries and Wages.** In order to correct the inequalities in the salaries paid to the city employees, a committee on standardization was appointed early in the first year of the Gaynor administration. The task delegated to this committee by the board of estimate and to the sub-committee by the committee, was to devise and carry out a plan for the standardization of salaries paid for work of equal value. The essentials to the carrying out of this plan are as follows:

1. A detailed and intimate knowledge of the kind of work being done by every city employee.
2. A definite classification and exact description of the kinds of work being done.
3. A determination of the fair value of the different kinds of work in the city service.
4. The functions of all city departments.
5. The existing methods of performing these functions.
6. The formulation of recommendations.

(1) *Service Record Cards.*—Sets of cards were prepared to record such information as will afford every facility for comparison of positions. The civil service records of approximately 38,000 city employees had been transcribed from the cards of the municipal civil service commission. About 20,000 of these cards have been made a subject of study, including examination and appraisal. The study was carried so far that the examiners obtained an exact description of the kinds of work being done by the individual employees. This description, made by the employees themselves, approved by the men in charge of them, the examiners, and the departmental committees appointed to cooperate with the sub-committee, gives a full and accurate account of the *quality* of the average day's work of every individual employee.

(2) *Service Classification.*—While the work of examination and appraisal was still going on, the entire employment of the city government was segregated into sixteen grand divisions, such as administrative, clerical, engineering, investigation, etc. Each of these divisions was divided into groups and classes, and each of these classes into sub-classes.

(3) *Market Value of Work.*—This is obtained by corresponding with hundreds of large corporations where similar kinds of work are being done. The questions asked contained the exact description of the different classes of employees. To illustrate, instead of asking "What do you pay clerks?", the committee asked, "What do you pay for such work as is described in the different classes of the clerk group?" A tentative appraisal was taken on the basis of the information obtained, showing an average difference in compensation of 15 per cent to 25 per cent in favor of the city employee.

(4) *Functional Organization Charts.*—There have been completed or are in process of being drafted, more than four hundred functional organization charts, showing "the organic relations between bureaus, divisions and the working units in every department", the activities of city government undertaken by each department and the manner in which they are carried on. These charts are designed to afford an adequate basis for comparison of method, for investigations of results in connection with working force. They are also to be used in disclosing duplications or partial duplications of functions.

(5) *Tentative Appraisal of Values of Positions.*—No attempt was made during the first six months of 1913 to set values upon individuals. Later in the year, as soon as sufficient data were collected for this purpose, a staff of examiners was organized to make a tentative valuation of the existing positions. They made a careful study of the card

descriptions of work, held informal discussions among themselves, and with the directors under whom they worked, compared them with each other, and whenever they found the data incomplete or inadequate, obtained additional information from various sources. The way in which they appraised the values of the existing positions was by devising a code, representing by alphabetical symbols the service, group, class, and sub-class of all employments. "Without the slightest reference to name, age, civil service title, or existing salary of the person whose card was being considered, it was assigned by the appraisers to the place in the classification where it naturally fell." The appraisers were utterly ignorant of the money values attached to the code symbols which they used. In case of doubt, the directors were consulted. Tentative values were listed and compared with the existing salaries. Any disparity between the two of \$300 or more was noted. These tentative appraisals are, however, not regarded by the director as final. They will merely serve as a ground work for future intensive studies in the departments.

(6) *Recommendations.*—It is the quantity of the work of a given kind done by every individual employee that should determine his rate of compensation. In order to measure the quantity of the work an employee is doing, it is essential to study it in relation to the method by which the function of which he is a working unit is being performed within a department. For under a bad method, he may be doing an unnecessary amount of work having no practical value to the city. The sub-committee on standardization recommends that from now on the studies of the quantity of work being done by each individual employee and the methods employed by the different departments in performing their functions, should be taken up. It will then be possible to make a fairly accurate estimate of the

quantity of work required by every separate function, and to secure a fair day's work from every employee. Dubious and indirect procedure will give way to the simple and direct; and duplications or partial duplications of function will be disclosed and corrected. The sub-committee also recommends that a uniform system of measuring and recording currently the work done by each working unit should be devised and maintained in all city departments as well as in a central bureau which may be under the direction of the Board of Estimate and Apportionment. Such a recording system would afford a basis for all salary increases and promotions.¹ Further, the evil practice which has been tolerated in New York City of reporting men working on two different squads at the same time² and of detailing city employees to work for private firms in which some higher officials are interested, although they receive full compensation from the city,³ can be easily detected and remedied.

It is thus clear that salary increases will hereafter be fixed not by guess-estimates but by estimates based on specific knowledge of about 38,000 jobs. It is important to note here that the descriptions of 38,000 jobs, together with the facts regarding the nature, grade, etc., of each job, which were collected from employees and officers themselves, were sent back for confirmation or modification in the light of other possible facts, after they were confirmed or modified by responsible departmental officers. The as-

¹ The work of standardizing salaries and grades has just made a good start. For that reason, there is not much written information on this subject. This part is entirely based upon the unpublished report of the sub-committee to the Committee on Standardization of Salaries and Grades, 1914.

² Bureau of Municipal Research, *Report on an Investigation of the Office of the Commissioners of Accounts, New York City, 1907*, p. 12.

³ *Ibid.*, p. 27.

semblage of all these facts in one place cannot fail to constitute a fairly accurate basis for the standardization and increases of salaries. Unless salaries are based upon the value of work done, there is very little hope for a radical increase of work accompanied by a radical decrease in cost.

III. *Materials, Supplies and Equipment.*—(a) Definition and Classification. Heretofore there has been a good deal of confusion arising from the lack of distinct dividing lines between supplies, on the one hand, and materials, on the other, and between supplies, on the one hand, and furniture and fittings, on the other. The term "supplies" has been unduly stretched to represent everything from a postage stamp to an automobile; indeed, it is a fact that, heretofore, postage stamps have been purchased from the same account as the materials for making sewers and repairing highways, although it was obvious that there was no relation whatever between sewer and highway materials and postage stamps.

An effort has been made to correct this condition by an arbitrary distinction of "Furniture and Fittings" as one class, "Apparatus, Machinery and Vehicles" as another class, "Supplies and Materials" as a third class, and "Automobiles" as still another class. This separation into classes did not place in each class the articles that properly belonged there. In one case, for instance, a typewriter or an adding machine would be classified as "Apparatus and Machinery," and in another case it would be classified as "Furniture and Fittings," and in still another case as "Supplies and Materials." In general, an effort was made to place those little articles of transient use or articles that last for a short time in the "Supplies and Materials" classification. This was logically sound, but there was no definite rule by which the articles could be classified, because in some cases articles that have a transient life in some offices would endure for years in other offices.

The result of the failure to make proper distinct lines of separation or classification was an abuse of appropriations. To illustrate, an automobile would be paid for from an account intended for an entirely different purpose. "The bureau of audit, department of finance, could never be sure when the cost of an article was properly chargeable to an account to which it had been charged."

It was found necessary to create arbitrary dividing lines in order to establish classifications under which all articles can be properly grouped. These classifications are, of course, useless without proper definitions. The following definitions have been adopted:¹

"Supplies are articles which can be used but once, or which, after being used once, show a material change in or an appreciable impairment of their physical condition."

"Equipment includes all apparatus, machinery, vehicles, tools, instruments, furniture, fittings, and other articles which can be used over and over again without a material change in or an appreciable impairment of their physical condition."

"Materials are articles and substances in a natural or manufactured state entering into the construction or repair of any building, highway, sewer, apparatus, machinery, or other equipment."

In the case of supplies there is an exception to the general rule. This concerns the stationery, chiefly because practically all stationery is furnished by the City Record, and partly because the term "Stationery Supplies" has such a definite meaning that the rule could not be applied without doing violence to the general practice. Many things which are in the nature of equipment, and endure for years are

¹ Cf. *Budget Classification* to be used for 1915, Department of Finance, p. 2.

classified and supplied by the City Record as "Stationery Supplies." This exception, however, does not affect many departments in the city.

The three broad classifications were further segregated in making appropriations. The supplies classification is segregated into eleven sub-classifications, the equipment classification into nine sub-classifications, and the materials classification into four sub-classifications, as shown on page 36.

Thus, the distinction that has been made between supplies on the one hand and equipment on the other makes clear thinking and proper classification possible. To the mind of the average man anything supplied is a supply. The so-called supply bills passed by the legislature include things that are in the nature of equipment. In some cases, even the heavy sort of equipment, available for the construction of buildings, is grouped under supplies. This loose meaning of the term "supplies" has done more than anything else to prevent a satisfactory classification of budgetary provisions for other than personal service. When the old, loose methods of thinking and classifying are replaced by the new ones, a clear distinction between supplies and equipment will become possible. A typewriter ribbon can be used more than once, but it cannot be used at all without physical impairment of its condition. It is therefore properly chargeable to a supply account. On the other hand, typewriters can be used over and over again, and as a matter of fact, they are used for trial before they are sold. They are therefore properly chargeable to an equipment account.

In the New York budget distinct lines are drawn, not only between supplies and equipment, but also between different kinds of supplies and different kinds of equipment. To illustrate, medical and surgical supplies—under grand

classification B. supplies, p. 36—consist chiefly of medicines, bandages and little articles that are used once in the treatment of or operation upon a patient and then thrown away. Whiskey, wines, alcohol, or other spirituous liquors, which in previous years would have been included in food supplies, are now included in medical and surgical supplies. The departments or other organization units like hospitals are not allowed to charge them to a food supply account.

Besides the three grand classifications mentioned above, there are three others, *vis.*, contract or open order service, fixed charges and contributions and contingencies. There are seven sub-classifications under contract or open order service and seven under fixed charges and contributions. They are all self-explanatory. In the case of contingencies, however, a few words are necessary in order to point out the great advance that has been made. Contingency accounts before 1913 were abused more than any other accounts in the budget. Things for which the appropriating body refused to grant appropriations were bought and paid for from the contingency accounts. Salaries were charged to contingency accounts in violation of the charter requirements and of the rule of the board of estimate and apportionment. Furthermore, things that constitute the contingency accounts are things not contingencies. By contingencies we mean the things or needs that cannot be foreseen, but until 1913 no attempt was made to draw a distinct line between things for which a need was foreseen and those for which it was not. On this account it had been the practice for the departments to include in contingency accounts provisions for the purchase of large quantities of furniture, notwithstanding the fact that the departments had furniture accounts.¹

¹ *Budget Classifications, 1915, p. 8.*

In the 1914 budget, a remarkable advance was made over the former years. The contingency accounts are not permitted to be stretched to cover things that are not real contingencies. Departments are instructed to be very careful not to buy things out of the contingency appropriations unless they are real contingencies.

(b) Estimates Rendered Inaccurate by the Decentralized System of Purchasing Supplies. Notwithstanding the fine distinctions that have been made between supplies and materials or between supplies and equipment, it is still impossible for the makers of the New York City budget to get accurate departmental estimates of supply requirements, owing to the confused condition in which records are maintained in most city storehouses. Consequently, allowances for next year are granted on the basis of the amount allowed in the year previous, with such increases or decreases as the departments see fit to ask for. In order to be on the safe side, however, they generally ask for a good deal more than they actually need, with the inevitable result that supplies are overpurchased, causing a large quantity of them to be stored up in locked rooms. This kind of extravagance and waste can be put a stop to only through the establishment of a proper storehouse system.

Further, the segregated budget provides itemized appropriations for different divisions, bureaus and offices within one department, necessitating the separate purchase of the supplies they require. The result is that one bureau within a department may keep a large stock on hand for which it has no immediate use, while another, within the same department, may be obliged to buy a supply of the same article on open market orders, in order to meet an emergency. There are over 2,000 different delivery points at which articles of supplies are received and accepted by the city. The evil effects of such a decentralized system of de-

delivering and receiving supplies upon the securing of competitive prices and the task of the inspectors in ascertaining whether or not the supplies are in strict compliance with the specifications or whether or not they have been properly delivered, cannot be overstated.¹

(3) How Purchases of Supplies are Made by the City. The city charter vests the heads of 120 different departments, bureaus, boards, commissions, and offices under the city government with the power to purchase supplies. The methods of purchase vary from department to department; there is no uniform system of accounting for purchases. No department knows what its sister departments are buying; therefore the benefits obtained and the results achieved by one department are of no practical value to another. It has been long recognized as an economic law that the larger the quantity purchased, the cheaper is the price, but the city has heretofore failed to avail herself of the operation of this law. Instead of buying through one purchasing bureau materials and supplies in large quantities at wholesale prices or after competitive bids, the 120 different departments, bureaus, offices, and institutions are each buying at retail prices.

The charter provides for the purchase of supplies in small quantities to the extent of \$1,000, upon what are known as "open market orders", without competition. This provision has been greatly abused by the departments. This charter provision was intended to cover only small emergency purchases. A careful study of the unit prices paid for supplies bought both upon contract and upon market order, without competition, shows that the city pays about 25 per cent more for supplies bought under the latter

¹ *Comptroller's Report Submitting Plan of Proposed System for the Central Purchase and Distribution of Supplies, March 15, 1913, pp. 13-14.*

method. In the case of large commercial corporations, emergency purchases generally cover about 3 per cent of the entire amount of purchases, whereas with the City of New York they rise above 30 per cent of the whole expenditure for supplies. It is obvious that the city departments are continually splitting up the large orders into small ones in order that the amount they pay for each order may not exceed \$1,000.

With the vast number of small open market order purchases, there come in vast numbers of vouchers, drawn by the departments upon the finance department for payment. This means an unnecessary amount of work in preparing and recording the vouchers in the purchasing departments themselves, and in recording and paying them in the finance department. It entails an unnecessary delay in paying the bills, thus preventing many large dealers from bidding for the purchases and at the same time increasing the cost of supplies.¹

(d) A General City Storehouse. All these disadvantages could be done away with through a general city storehouse, operated "as a clearing house for the receipt and distribution of all supplies required by every city department, except perishable supplies, and coal, wood, and forage." On the other hand, the chief advantages arising from such a central system will be as follows:

(1) The consolidation of all the delivery points at which supplies are now received and accepted, thereby encouraging the large dealers to bid on supply contracts. This will inevitably bring about a reduction in unit costs. Further, a centralized system makes it easy uniformly to enforce the purchase specifications and adequately to inspect all deliveries.

¹ *Comptroller's Report Submitting Plan of Proposed System for the Central Purchase and Distribution of Supplies, March 15, 1913, pp. 9-10.*

(2) A great reduction in the amount of money tied up in the large surpluses of supplies stored away in locked rooms and closets, for which there is no immediate use.

(3) "The absolute control over the distribution of all kinds of supplies to every city department by the creation of comprehensive uniform departmental and general storekeepers' records, accounts and perpetual stock inventories."

(4) The establishment of records, which will enable the appropriating body to authorize appropriations for supplies on the basis of complete and accurate information as to the actual user of supplies and the stock on hand from year to year in every city storehouse.¹

(e) Standardization of Materials and Supplies. Up to 1909 no effort was made by the City of New York to apply the principles of standardization to the purchase of materials and supplies, in spite of the fact that no two of the 120 different purchasing departments used the same method in making purchases. There was also an amazing lack of uniformity in the character of specifications and records maintained by the different departments.

For instance, in the past each purchasing department prepared its own specifications. The result was every conceivable kind of more or less loosely drawn specification. In most of these no quality standard could be found. One of the largest coal-using departments in the city purchased its supplies upon what is known as the "coal area basis," that is, the specifications required that the coal delivered should come from certain well-known mines in certain coal areas, but if the contractor delivered any kind of coal, the burden of proof rested upon the city to prove that the coal delivered was not equal in quality to that demanded in the specifications.

¹ *Comptroller's Report Submitting Plan of Proposed System for the Central Purchase and Distribution of Supplies, March 15, 1913, p. 16.*

This lack of uniformity has cost the city millions of dollars each year, which must be regarded as a sheer waste. This loss could be successfully prevented or checked by learning what one of the largest railway corporations on the continent is doing. "Through the medium of a central purchasing department, sixty million dollars' worth of supplies and materials is purchased annually for every requirement of over five thousand miles of railway with its sleeping and dining-car services, a trans-Atlantic and trans-Pacific steamship line, and a string of high-class hotels extending across the entire continent." Every dollar's worth of this tremendous amount of supplies and materials of all kinds is purchased upon standard specifications.

As we have already seen, the segregated budget of New York City has reached such an advanced stage that different appropriations are made for different classes of supplies, materials or equipment. This certainly protects the city's funds in a large measure from wrong use. But because the supplies or materials are bought by 120 departments on widely varying or loosely drawn specifications, the city's financial interests are still sacrificed.

The necessity of modifying or rather improving the specifications therefore made itself felt. To this end, a committee on standardization, consisting of the mayor, the comptroller and the president of the board of aldermen, was elected in 1910 by the board of estimate and apportionment. This committee in turn appointed a commission on standardization for the purpose of standardizing the materials and supplies. It is the duty of this commission to determine as far as possible the character and probable amount of each class of materials and supplies annually purchased by the city and to formulate specifications under which such materials and supplies might be most advantageously purchased. But while the board of directors of a

railway company can, at will, revolutionize every administrative method and introduce in its place an entirely new and different system in order to secure the best results, the board of estimate and apportionment would meet with a great deal of difficulty in carrying out this principle, because under the provisions of the charter, and the laws governing the administrative functions of the city, the power to purchase materials and supplies is vested in the heads of the various departments.¹

To-day the difficulties are mostly overcome and by substituting methods of precision for pull and guess-work, light for darkness, the city will save millions of dollars a year whose waste in the dark era never came to light. By standardizing coal and boiler grates, Borough President McAneny has cut his coal bill from \$90,000 to \$45,000.² Standardization means not only economy in price, but also economy in service ability, for the city is assured the delivery of suitable goods of uniform quality. At the beginning of 1914 supply standardization was about 75 per cent completed.³

The method of standardizing specifications consists in:

First, tabulating and analyzing the quantities and cost of commodities bought by all of the city departments and the conditions under which they are purchased.

Second, submitting to technical and trade experts the tentative specifications prepared by a sub-committee furnished with this detailed information.

¹ *Proceedings of the Seventh Annual Convention of the National Association of Comptrollers and Accounting Officers, 1912*, contains an article on *Efficiency in City Purchasing*, by Richmond Smith, pp. 133-143.

² *The Cost of Government in New York City*, by Henry Bruère, published by the Record & Guide Co., p. 4.

³ *Ibid.*

Third, submitting to a conference between the commission and all the departmental purchasing agents concerned the revised tentative specifications.

Fourth, the forwarding to each member of the board of estimate and apportionment the perfected specifications, in the form of a report recommending "their adoption for general use by all city departments, well in advance of the time when the board is requested to act upon the Report for adoption."¹

(f) A Central Purchasing Bureau. In order to make the standardization a success, it is necessary to establish a central purchasing bureau for the entire city government. This proposition must not be looked upon as a new and untried scheme for New York City. For instance, the commissioner of the water department reported on the substantial savings, as a result of establishing a bureau of supplies "which purchases, inspects, stores and issues materials used by the department and lets all contracts." It is the habit of the water department continually to keep in store a quantity of supplies worth hundreds of thousands of dollars. About seven years ago when an inventory was taken by the Bureau of Municipal Research of the large water department pipe yard in 24th Street, it was found that the entire storehouse was strewn all over with articles of materials and supplies and although records were kept, they were of no value as a means of showing the kinds and quantities on hand. Underneath other supplies there lay hidden large quantities of expensive supplies, which were purchased years ago but were no longer useful on account of the changes in equipment. None of the expensive goods which were stored in this yard was given proper protection. To-day, by having properly organized the storehouses, with classified lines and

¹ *First Annual Report, Commission on Standardization, June 30, 1911, pp. 7-8.*

records showing what comes to stores and what goes out of them the water department is able to exercise a control over all its supplies and materials.

Another striking example of a central purchasing bureau is offered by the office of Borough President McAneny. It was found that under the administration of his predecessor, John F. Ahearn, gross extravagance and favoritism were extensively practiced in the purchase of supplies. A "yard of lemons" taken from Ahearn's purchases showed that the prices paid by his department for large quantities ranged from 50 to 57 per cent more than the prices paid for the same articles in units of one by the Bureau of Municipal Research.¹ Undoubtedly Borough President Ahearn's friends had been supplied with lemons at the city's expense. When Mr. McAneny came into office as Borough President, one of his first tasks was to revolutionize the purchasing methods. A central purchasing office was organized to take the place of the five bureaus under his jurisdiction, which purchased supplies independently of each other. He required two things to be done, *vis.*, (1) the purchase of goods of adequate quality, and (2) the invitation of fair bids upon them.

Being fully convinced of the feasibility of the plan for a central purchasing bureau, not for one department but for the entire city government, Comptroller Prendergast has lately issued a report recommending the adoption of the plan. In this report he pointed out the great waste of money attributed to the diversity of purchasing methods as practiced by the 120 departments and to the wide range of prices for supplies bought by them. He also showed that the practice of buying supplies on open market orders, as contrasted with competitive contracts, penalizes the city

¹ *The Cost of Government in New York City*, by Henry Bruère, p. 7.

about 25 per cent. His figures indicated a waste of \$700,000 in the purchase of \$3,500,000 worth of supplies on open market orders in 1911. A joint legislative committee investigating the city's finances as long ago as 1909 expressed itself as in favor of establishing a central purchasing agency. The Ivins' charter commission before that time and the Hammond's charter commission afterwards made similar recommendations. But their recommendations were not enacted into law, on account of legislative inertia plus the political influence of interested contractors.

The comptroller's charge that the manner in which supplies are purchased for the various city departments is a source of extravagance and abuse for the reason that it leads to favoritism and payment of excessive prices, can be amply demonstrated by facts. Section 419 of the Greater New York Charter provides that all work and supplies worth \$1,000 or over shall be purchased by contract to be awarded to the lowest bidder, unless the board of estimate and apportionment, by a three-fourths vote of all its members, shall choose to award it to a bidder other than the lowest. There is no indication whatever that this provision has brought about an effective economy in the expenditure for supplies. When the city's interests are entrusted to an honest commissioner, they will be safe, but when they are placed in the hands of a dishonest one he can find many ways to bring the efforts of the law-makers to naught. As stated above, instances have been found where the charter provisions permitting a purchase of supplies in quantities involving an expenditure of less than \$1,000 without contract, upon what are known as open market orders, has been frequently violated or secretly evaded. This evasion is found "in practically every department. In one department alone, there were purchased over \$60,000 worth of

standard supplies on orders of this kind from one firm in three years."¹

In order to remedy these abuses it is proposed to establish a general purchasing bureau under the jurisdiction of a purchasing agent, whose duty it is to purchase all supplies requisitioned for by the 120 different departments, bureaus, etc. He shall be responsible not only for the prices paid by him, but also for the preparation of all vouchers transmitted to the comptroller's office for payment. Thus, instead of inviting bids for every conceivable kind of supply in a single contract, bids will be invited for the gross quantity required in a single trade line under a single contract. In the place of a hundred or more different contracts, there will come into use only one contract; in the place of the widely varying unit prices, there will be substituted the lowest possible unit price. This means a great reduction in the number of vouchers, offering the city the opportunity of securing special cash discounts in the payment of its bills. It also means a great increase in the competition for the city's supply contracts, and a corresponding reduction in prices.

Further, the vesting of the power to purchase all supplies for the city, with few exceptions, in one purchasing agent affords every facility to exercise an administrative control over all orders issued and payment vouchers passed for supplies bought. One feature of the proposed plan is for the purchasing agent to prepare a daily control statement, "showing the city's complete approximate contingent liability for supplies ordered, as well as its complete actual liability for supplies vouchered for payment."² This will

¹ *Report of the Charter Revision Commission of 1907*, p. 44.

² *Comptroller's Report Submitting a Plan of Proposed System for the Central Purchase and Distribution of Supplies*, pp. 10-12.

be a long step toward continuous control over one of the most important items in the city's budget.

E. THE ALLEGED DISADVANTAGE OF SEGREGATION

It has been advanced as an argument against segregation that a segregated budget presupposes a detailed classification of accounts, which increases the outlay for clerical service, because the items which under the loose system were posted to one account must now be posted to many different accounts. This argument is, however, fallacious. To segregate accounts entails no larger expenditure for clerical service, because a payment of \$25,000 for the hire of a vehicle could be charged and posted to a page headed "Horse Hire" with the same ease as it was posted to a page headed "Miscellaneous." On the other hand, high segregation reduces to a considerable extent the difficulty of recasting and recapitulating the items in the ledger in order to find out what has been posted. Moreover, since items of identical nature would be posted to the same accounts, the different accounts would therefore stand out by themselves and a comparative study of them, together with the results achieved, would show most vividly where waste and extravagance have crept in and where economies have been effected and efficiency has been increased.¹

F. ADVANTAGES OF SEGREGATION

The first advantage of segregation is that a segregated budget will enable the comptroller to present such a clear and comprehensive summary of departmental expenditures as to focus the attention of the general public upon the most salient features of the annual budget. For example, what proportion of the total budget was currently expended for

¹ Cf. a pamphlet published by the Bureau of Municipal Research, 1907, *Making a Municipal Budget*, pp. 29-30.

operation, what proportion for the payment of interest and sinking funds, etc. Under the cost of operation he may also show what portion of it was for general administration, what portion for the care of dependents and defective persons, which is a function performed sometimes by more than one department or institution, as in New York City, what portion for health and recreation, what portion for protection of life and property, etc. Moreover, if the next year's estimated expenditures are brought into comparison with the estimated revenues, the deficiency of revenue, if any, can be most prominently shown. This will emphasize the fact that the city is financially embarrassed, and that unless new sources of revenue are found, it will be hampered in carrying out its multifarious purposes.

The second advantage is that in a segregated budget provisions for labor, materials, etc., are separated one from the other. Under the old "lump-sum" system all of them might be covered by one account. The skillful employees, like the municipal engineers, did not know that actual labor and material required for the performance of their work had been provided for in the budget. The indefinite method of hiding everything in one lump sum gave them no assurance that the money provided for labor and materials would not be diverted to other purposes. This misuse of funds can be prevented by means of segregation, which affords a security that the money provided for their work will not be misused, and encourages the engineers to take definite steps in carrying out their projects. Without a segregated budget they will hesitate to perform the work.

Further, in the old days, the chief clerk or some representative of the departmental head would sit down behind closed doors and make up an estimate based on guess-work. Now, the engineers themselves are required to furnish detailed information in regard to particular needs. This makes

it necessary for them to study their needs and to plan carefully for the year's work. A more accurate estimate as to the probable cost is therefore obtained. In addition to this advantage there is a corresponding benefit to the engineers, because if they are required to study their needs they can readily furnish the appropriating body with exact information, thereby supporting in a large measure any request that they may make.

The third advantage is that a change of the commissioner or departmental head will not cause the plan of the work to be altered. For instance, under the old system where scores of indefinite things were grouped together a new commissioner might alter the plan of a certain work, because it did not meet his approval. Money which had already been spent on it was thus wasted. Under the present system after an authorization is made for specific improvements and plans drawn therefor, a new commissioner cannot divert the money to purposes other than those intended. He must either carry out the project indicated in the authorization or receive public censure for an extravagant and wasteful administration.

The fourth advantage of a segregated budget is the prevention of padding the payrolls. It is a well-known fact that when lump-sum appropriations were made as much of them as possible was frequently held back for political purposes until the fall of the year, especially in a year of closely contested elections. The important work of the department might be postponed until the fall, when primary elections were held. Scores of laborers were then placed on the payrolls and received pay from the lump appropriations, although in many cases no work was done. Under the present scheme, this practice has been greatly lessened.

The fifth advantage is that it is more difficult now to award contracts to favorite contractors for enormous quan-

ties of materials and supplies, more than possibly could be used. Such practices, which were almost the order of the day under the old system, are now greatly reduced, through the adoption of a segregated budget.

In the latter part of 1903 about 3,300 brass curb cocks were received at the Twenty-fourth Street pipe yard of the Department of Water Supply. In 1908, five years later, 3,200 of these same cocks were lying undisturbed in their original resting place.¹ Such practices are rendered more difficult through a segregated budget, because the estimates of needs for certain pieces of work are made more accurate through the operation of unit cost accounting and the careful investigation and study of the examiners.

¹ Cf. *Proceedings of Municipal Engineers for New York City, 1912*, p. 132.

CHAPTER II

PREPARATION AND EXAMINATION OF BUDGETARY ESTIMATES

A. PREPARATION OF BUDGETARY ESTIMATES ¹

I. *Method Followed by Departments in Filling Out Budgetary Salary Forms.*—In New York City the various departments are required by the charter to submit estimates of their needs for the succeeding year not later than September 10th. For this purpose, as pointed out in Chapter I., uniform schedules on specially ruled and printed forms are furnished by the comptroller. They are usually sent to the departments shortly after June 1st, which allows them over three months in which to prepare their estimates and enter them upon the forms in accordance with regulations designed to secure a clear presentation of the nature of increases or decreases of the departmental estimates and to make possible rigid control over the departmental expenditures. One of the personal service forms will serve as an example of the procedure followed. In this form one of the main columns with the heading, "Titles of Positions"; is divided into two branch columns, the first for the titles of unchanged positions, and the second for those of all new positions or all positions in which changes are requested.

¹ This section is based largely upon the instructions and the uniform schedules sent out from the finance department to the various outside departments, bureaus, offices and institutions, as well as upon my personal talks with the examiners.

Take, for instance, the following item in a certain schedule in the budget of 1914:

Clerk, 6 at \$900 \$5,400

Assume that the head of the department under whom these six clerks are working wishes to promote one of them to a higher position, with a salary of \$1,050, and to engage a new clerk to take the place of the one promoted. Instead of six clerks as before, there are now seven clerks, of whom six are old and one is new; and of the six old, one is promoted to a higher position. Under the old, loose method, the departmental head would in such a case have sent in a request for six clerks at \$900 and an additional clerk at \$1,050. There would be nothing to show that one of the six clerks at \$900 is a new employee to take the place of the one promoted, and that the clerk at \$1,050 is not an additional new clerk but an old clerk deserving promotion by reason of his efficiency, ability, or diligence. This lack of information was characteristic of the old hodge-podge method of making appropriations. Under the new method full information is given as to the exact nature of the proposed changes. In the case under discussion, the head sends in a request, not for six clerks at \$900, but for five clerks at \$900, and because their titles are titles of unchanged positions, they are carried in the first column. He then asks for one clerk at \$900, whose title of position is put in the second column to show that he is a new employee. Finally he requests a clerk at \$1,050 and carries his title into the second column to indicate that he is a \$900 clerk promoted to \$1,050.

In order to convey a clearer understanding of the procedure followed in filling out the form with salary estimates, so as to furnish exact information as to the departmental estimates, I shall go into the details of this part of budget-

making and point out the evil practices which the new procedure is intended to remedy. To better serve the purpose, I take up the procedure to be followed in filling out a personal service form based on an imaginary schedule in the department of water supply, gas and electricity. This schedule is assumed to appear in the 1914 budget as follows:

WATER SUPPLY, GAS AND ELECTRICITY
PERSONAL SERVICE
SALARIES, REGULAR EMPLOYEES
ILLUMINATION, POWER AND HEAT CONTROL

No. 482. Inspection.

Assistant Engineer	\$2,250
Chief Inspector, 2 at \$2,250	4,500
Inspector, 6 at \$2,250	13,500
Inspector, 25 at \$1,500	37,500
Inspector, 43 at \$1,200	51,600
Clerk	1,950
Clerk	1,800
Clerk, 3 at \$1,350	4,050
Clerk, 3 at \$1,200	3,600
Clerk, 4 at \$1,050	4,200
Clerk, 9 at \$900	8,100
Clerk, 3 at \$750	2,250
Stenographer & Typewriter, 5 at \$1,050.....	5,250
Stenographer & Typewriter, 4 at \$900	3,600
Balance unassigned	300

\$144,450

Let us assume that the head of the department wishes to make changes in this schedule. He requests an increase of \$250 in the salary of the assistant engineer at \$2,250. Consequently he puts his title of position in the second column under the heading "Titles of Position." Besides the main column for titles of positions, there are many other columns in the form, two of which are the rate-columns, one under the heading of "Requested for 1915," and the other for the "June condition in 1914." In the "Requested for

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1915" column, he places the amount of \$2,500 and in the "June condition" column he shows the fact that the present rate is \$2,250. In another column with the caption of "Requested Increase in Salaries," he places \$250, which is the increase in salary he requests. He follows the same line across and when he reaches a column headed "Individuals for whom salary increases are requested," he puts the name of the assistant engineer, which we shall assume to be John Sylvester. He also notes the fact that the date of the last increase for Mr. Sylvester was May 1, 1906, and that the amount of the last increase was \$150. In this way the appropriating body is enabled to know that there has been a long interval since Mr. Sylvester received an increase in salary, and that the last increase was only \$150. The old practice of increasing the salaries of favorite employees at will at short intervals of time is thus rendered more difficult.

Passing over the two chief inspectors at \$2,250 and six inspectors at \$2,250, we come to the item "25 inspectors at \$1,500." In this item, the departmental head desires to make changes in six of the incumbents. As this leaves nineteen incumbents unaffected, representing the unchanged portion of this item, their titles of position are placed in the first column under "Titles of Position."

The method pursued in making the requests for the remaining six incumbents at \$1,500 illustrates several important principles of budget-making. In the first place, a separate line must be used for every incumbent, if any change is to be made in his position. If any position is left vacant, a separate line must be used for each vacancy. It is necessary to use a separate line, because each case must be considered independently, no matter whether or not the rate in each case is the same. Ordinarily, the board of estimate and apportionment, in dealing with the estimates of personal service appropriations, treats all the employees receiv-

ing a uniform rate of compensation as one line item, as for instance, "Inspector, 25 at \$1,500," in this case. This is true whenever the twenty-five employees remain in the same position and receive the same rate of salary. But when some of them are to undergo a change in their positions or a change in their salaries, a separate line must be used for each of them, because in each case the question of personal identity arises. Usually in such cases the increase in salary is requested on the ground of the superior merit of some individual employee, which must be certified to by a statement of facts concerning him alone.

In the case of the six inspectors at \$1,500 who are not to be left at that rate, two are to be dropped. Their titles of position must therefore be in the second column under the heading "Titles of Position." If these two inspectors are both engaged in active service, they may be put down in one line. But in this case we assume that one of the positions is a vacancy which is not to be filled again. A separate line must therefore be used to indicate this fact. Another separate line is used to indicate the dropping of the other position which is occupied at present. The fact that both positions—one vacant and the other occupied—are to be dropped is shown in the column headed "Reductions in Force."

For the remaining four of the six inspectors the following requests are made by the commissioner. One inspector is slated for an increase in salary of \$150. His name is Joseph Clark. Another inspector, by the name of Isaac Rolder, is slated for an increase of \$300. Still another, whose name is John Brown, has not been doing satisfactory work and the commissioner proposes to reduce his salary by \$300. The fact that the \$300 reduction is requested is shown in the column headed "Decrease in Salaries." Brown is his name and the amount of his last increase is shown just as if an increase was requested.

The disposition of the last inspector at \$1,500 illustrates another very important point in making up the budget estimates. Like the first two of these inspectors, he is to be dropped, so far as this particular schedule is concerned; but unlike the first two, he is not to be dropped from the department, but is to be transferred to Account 481, Gas Examination. This fact is to be noted opposite his title. The rate of his salary is put down in the column headed "Reductions in Force," just as the rate of the first two inspectors, who are to be dropped from the department entirely, is put down in that column. The distinction between these two cases is noted by writing "dropped" in the "Remarks" column, on each of the first two lines; and "transferred" in the same column, on the line devoted to the last inspector.

No change is requested for the item "Inspector, 43 at \$1,200—\$51,600" and for "Clerk at \$1,950." These titles of position must therefore appear in the first column and since there is no change requested, all columns indicating change are to be left blank.

Passing over the three successive items—"Clerk at \$1,800," "Clerk, 3 at \$1,350," and "Clerk, 3 at \$1,200"—we come to the item, "Clerk, 4 at \$1,050." A request is made for the increase of one of these clerks, who is slated for a raise to \$1,200. This leaves three of the four \$1,050 clerks undisturbed. Their title of position appears in the first column. The commissioner wants to employ four additional clerks at \$1,050, making seven in all. The titles of position for these four must appear in the second or "change" column, each on a line by itself. Two of these clerkships are entirely new, and are not transferred from other accounts in the same department. Therefore they are marked "new" in the "Remarks" column. The June condition columns for these two clerkships are left blank,

showing that they are not now employed. The third of the four additional clerks at \$1,050 is to be transferred from another account, say No. 478, Administration. The fourth is also to be transferred from the same account, but at an increase of salary. His present salary is \$900. The case of the fourth clerk brings out another very important point to be borne in mind. That is, where employees are transferred at an increase of salary, their present salary alone should appear in the column showing additions to force, and the proposed increase of salary should appear in the column devoted to increases of salary. In the case of these four additional clerks at \$1,050, all represent new men, so far as this schedule is concerned, but in the case of the last additional clerk, his present salary of \$900 is raised to \$1,050, showing an increase of \$150. Consequently, he is put down in the column headed "Additions to Force" at only \$900. It is very important to make this distinction, or else it might lead to confusing difficulties in determining what part of a requested increase is for new men and what part for increases of salary.

The form for this schedule having been filled out, the next thing to do is to show the total number of incumbents requested, and to insert it in the space specially provided for this item. There are other column summaries to be filled in. When all this has been done, the department must calculate and show the net result of such summaries, that is, the decreases in the salaries requested are subtracted from the increases in salaries requested and the net balance of increases must be shown at the top of the form in the space provided for it. Similarly, the reductions in force are deducted from the additions in force requested in order to show the net balance. The same is done with the total of all increases or decreases from all sources.

Another important point to learn in regard to the method

of budget-making in New York City is that the estimates of all accounts in which the employees are paid from but one kind of fund, for example, Tax Levy (or Tax Levy and Special Revenue Bonds, which two funds are considered as one kind of fund), or Corporate Stock or Special and Trust funds, or Water Revenue fund or Bridge Revenue fund or private funds or fees and fines, are entered on different forms from those on which all accounts in which the employees are paid from more than one fund are entered. In all cases where the account is charged against more than one fund, the distribution of the charges between the funds must be shown. Wherever a percentage symbol appears, the actual percentage should be shown. If \$100,000 is requested and \$60,000 of this is chargeable to Tax Levy, the percentage should be shown as 60 per cent, and the percentage chargeable to other funds 40 per cent.

At the risk of repetition, it is well to emphasize the two most important points in making out the personal service forms. The first is that the departmental chiefs must show in separate columns amounts appropriated in the preceding year and explain increases or decreases by supplementary statements. It is no longer permitted that estimates submitted by them consist merely of a list of desired appropriations, without comparative information and with little chance that they contain sufficient explanation for intelligent consideration. The second is that in no case, except where no change is proposed, can a line item be used for more than one incumbent.

II. *Salary and Wage Appropriations from "Mixed Funds"*.—As pointed out in the preceding chapter, the salaries and wages, both for regular and temporary employees are in some cases paid out of mixed funds. For example, an engineer who spends 40 per cent of his time in drawing designs for the construction of a new bridge

receives 40 per cent of his salary from the Corporate Stock Fund, because the cost of construction is a capital outlay. If he spends the balance of his time in repairing an old bridge, he may receive 60 per cent of his salary from Tax Levy, because the cost of repairing is a current cost. For that reason the department must see to it that in filling out the Salary and Wage forms the distribution between Tax Levy and other funds is clearly indicated. Further, this distribution must be on the basis of the rate of the entire first six months' expenditure and not on the basis of June payroll alone. In this way the traditional method of making a Salary or Wage estimate known as the "June Jump" is eliminated.

In filling out the salary and wage estimate forms, under "Mixed Funds," the departments are confronted with a complicated problem. There may be two kinds of increases in Tax Levy or other funds due to salary increases and to change in the distribution of cost. For instance, the salary of the engineer in our illustration may be raised to a higher figure, showing an increase in Tax Levy or other funds due to the increase in salary. At the same time, instead of receiving 40 per cent of his salary from the Corporate Stock fund, he may in the following year receive only 30 per cent, thereby transferring the remaining 10 per cent to Tax Levy. There is, therefore, a requested increase of 10 per cent in Tax Levy, due not to salary increase but to change in the distribution of cost. Thus, there are in our case two kinds of salary increases in Tax Levy; the nature of one is so different from that of the other that it is necessary to show the requested increase in Tax Levy or other funds due to salary increases, as distinguished from the increase due to change in the distribution of cost. For that reason, two distinctions are shown in the form under "Requested for 1915", one including

salary increases requested and the other including only the 1914 salary rate but distributed on the basis requested for 1915. This distribution must be made for each line. The difference between the totals of the two distributions should represent the increase or decrease in Tax Levy or other funds due to salary increases. Requested increases in force (time) should be carried on both distributions and, of course, should be the same in both places. The requested change in distribution where no change of rate is involved must also be shown in both distributions. To arrive at the increase in Tax Levy due to change in distribution, the departments should consider only the 1914 force or allowance. After that is done, they should then figure this force on the proposed 1915 distribution, and deduct from the Tax Levy part arrived at by this process, the Tax Levy part under the 1914 distribution. The difference in the change is due to distribution. This change must always be figured out before the change due to salary increases is taken up. Salary increases must always be distributed on the 1915 requested basis. This rule applies not only to the departments preparing the estimates but also to the examiners analyzing them after they are sent in.

III. *Schedule Forms for Supplies.*—In the preceding chapter I discussed in detail the budget classifications and pointed out the distinct lines that have been drawn between supplies on the one hand and materials and equipment on the other. They have proved of great value in defining the class of each article purchased by the city, and have eliminated one of the most troublesome features of audit by the finance department, because the old practice of buying an automobile out of an appropriation intended for some entirely different purpose is now almost impossible. In every case of payment for articles bought, it is now not difficult to tell at a glance whether the cost is chargeable properly

against the account against which a voucher is drawn. The expense accounting system of the city has been changed to conform to these classifications. As the articles of supplies have been split into eleven classes, it is necessary to have a corresponding splitting of the supply forms, so that a proper accounting may be made for each class. The important point to be borne in mind in making out the estimates for materials and supplies is that they should include a statement of supplies on hand at the time of the submission of estimates and the expected consumption for the balance of the year.

When the forms prepared for all appropriations classified as food supplies are filled out, the attention of the department is called to the item "cost" which refers, of course, to food supplies alone. Stock on hand which must be shown on the forms in order to calculate the amount of supplies consumed, must include supplies in storehouses and institutions. Where it is impossible to give actual cost of consumption separated into employees and inmates, the closest possible approximation is to be made. In cases where a food article is repeated, on several lines, the department must fill in the kinds of this article; for instance, under Flour: Flour No. 1, Flour No. 2, gluten, or whatever kind of flour is purchased, consumed, or held in stock.

In the case of supply forms to be used for all appropriations classified as Forage and Veterinary supplies, the stock on hand must include supplies in storehouses and in stables. Supplies for horses must be accounted for and requested on separate sheets from supplies for cows, sheep, or zoölogical specimens. This is to facilitate the estimate of *per capita* cost of horses, as distinguished from cows, sheep, etc., including veterinary service.

The same is true with articles of wearing apparel. Stock on hand must include supplies in storehouses and in institutions, but not in use by patients or employees.

IV. *Actual Cost Obtained.*—Heretofore all published statements regarding the cost of maintaining the various departments and offices have been based solely upon budgetary allowances. But statements of expenses as shown in budget allowances do not indicate exact conditions, because in some cases the amount provided in the budget is not entirely expended, and even if it is entirely expended, there may still be some goods on hand which are bought out of this amount. For this reason, the supply forms call for a statement of supplies on hand, for without this, it is impossible to find a proper basis on which to make appropriations for the coming year.

To calculate the cost of maintaining the various departments and offices on the sole basis of budgetary allowances would be quite wrong and misleading, not only because the budgetary allowances in some cases are not entirely expended, but also because they are in other cases greatly exceeded by the issue of special revenue bonds, or by revenues of the departments. Therefore it is absolutely necessary to require the departments to make a statement of actual expenses during a fiscal period, to be used as the only reliable basis on which to premise estimates of the future or to compute unit costs or other statistical data for the guidance of administrative officials. New York City to-day does not depend upon a mere statement of audited vouchers or warrants drawn in the determination and examination of estimates, owing to the fact that they do not indicate the exact conditions of expenditure. They frequently include a large proportion of expenses incurred during a previous fiscal period and fail to include a large proportion of expenses incurred during the current year which are not audited or paid until after its close.

In order to find out the actual condition of expenditures, expense ledgers have been installed during 1912 in several

of the departments, which have submitted reports for the first six months of the past year to the comptroller, under whose direction the new expense ledgers were formulated and installed. From these reports are prepared the summary statements on a consumption basis of expenses incurred against budgetary appropriations and some other items such as the revenue of the bridge department, for the six months ended June 30, 1913.¹ These summaries reflect the actual amount of consumption and is a necessary guide to the appropriating body in providing appropriate amounts for the same purposes in the following year.

The departments from which reports from expense ledgers have been received or by which they are being prepared are the following:

Docks and Ferries.

Water Supply, Gas and Electricity.

Health.

Bellevue and Allied Hospitals.

Correction.

Street Cleaning.

Fire.

Parks—Manhattan and Richmond.

Parks—Brooklyn.

Parks—Queens.

Parks—The Bronx.

Bridges.

Armory Board, National Guard and Naval Militia.²

Enough has been said to bring out the fundamental principles involved in making out the estimate forms. Before concluding, however, I must call attention to the important

¹ *Budget News Bulletin*, no. 3, October, 1913, pp. 7-30.

² *Communication to Mayor Mitchell from Comptroller Prendergast*, Jan. 2, 1914, pp. 17-18.

distinction between "expended," "consumed," and "issued." The word "expended" is used in the New York City budget in its ordinary dictionary sense and relates to an expenditure of money and not to an expenditure of goods or articles from a storehouse. The word "consumed" is to be used only for goods actually consumed and is not applied to goods which have been sent on direct invoice to a point where later they will be consumed. Goods that have not gone through a storehouse are not shown as consumed, unless they have actually been consumed. Goods which have gone through a storehouse and have been issued are not shown as consumed, unless they have been consumed, or, in cases where the quantities are trivial, the consumption is under way.

The object of making such a hair-splitting distinction is to determine the actual amount of goods consumed in order to find out the proportion available for the remainder of the year, as well as to obtain the actual cost of maintaining each department. In the past, some departments have shown as consumption large quantities of goods which were not consumed and may not be consumed for a year or two to come. The fact that broken stone, for instance, is delivered directly to a road that is to be repaired should not be considered consumption. Consumption of stone is its actual use. "Expended" should always include encumbrances and obligations which have been incurred, even if deliveries and payments have not been made.

V. *Additional Information Required.*—In addition to the information contained in the forms, departments are required to furnish a complete statement concerning every salary increase requested, and also concerning each new position requested. The former should give the full civil service history of the person for whom the increase is requested. It should show the duties performed by the per-

son, and whether or not the position is entirely subordinate, or if it entails supervision over the work of others. If the position is of a supervisory nature, the statement should show the number of employees supervised, their titles and general duties. In short, every reason for the proposed increase should be stated. In regard to each new position requested, a full statement should be made. Departments should show why the present force is inadequate, if such is the case.

B. EXAMINATION OF DEPARTMENTAL ESTIMATES ¹

I. *The Rôle Played by the Examiners.*—When the estimates are received from the departments, examiners in the department of finance analyze them before they submit recommendations to the budget committee of the board of estimate and apportionment. These examiners are attached to the office of the comptroller, but in budget-making time they work under the direct supervision of the board of estimate and apportionment. This staff is charged with the duty of helping the departmental employees to fill out the standard forms with estimates, and also making a careful study of the estimates which materially affect the finances of the city, and of which the budget committee of the board of estimate should have knowledge. This knowledge is secured through the work of this permanent staff of experts. They have records and information available for use in making an analysis of the reasonableness and necessity of requested allowances.

Generally, the work of analyzing the departmental estimates is not recklessly done. It is a product of careful

¹ This part is largely based upon the unpublished instructions issued from time to time by the supervising statistician and examiner to all the examiners as well as upon my personal talks with the latter.

investigation and study. Not infrequently some estimates are not sent in until the last minute, thereby necessitating hurried study and in many cases ill-considered recommendations. But as a rule, there is sufficient time to have the estimates analyzed by these men of special training to bring out salient facts and report upon conditions and needs as determined by careful investigation and study. Recommendations made by these men are submitted to the board of estimate and apportionment. When they involve horizontal "cuts" under the original requests, they do not reflect upon the intelligence of the officials preparing the estimates. These recommendations are by no means free from error, but every effort is made to eliminate partiality and to recommend only those things which have proved to be justifiable. Moreover, these examiners are in position to make just and fair recommendations, because they have available to them cost data, complete information on departmental expenses, estimates for previous years, reasons for action taken on such estimates and comparative costs of like work performed in different departments, and if possible, in other cities. In short, they have all the tests whereby an intelligent appropriating body may reach an intelligent conclusion with respect to the adequacy or excessiveness of a requested allowance.

II. *The Justification for Independent Examination by the Examiners.*—It is not sufficient to call upon the heads of departments to explain the requests submitted. Information is therefore obtained from sources other than the officials requesting the funds, so that wise discrimination may be exercised in budget-making. Such information is made use of only after impartial investigation by the examiners.

While it is true that the estimates made by the departmental chiefs should carry great weight, because they know more about the needs of their departments than anyone else,

local political conditions are often such that they are busily occupied with matters having little or no connection with the affairs of their departments. They are obliged to depend upon the reports of their subordinates, who sometimes lack sound judgment as to the real needs of the divisions under their jurisdiction. Even when they are thoroughly familiar with the affairs within their organizations, they, too, sometimes lack the proper perspective as to what division should be made of the appropriations among the several functions of their departments. It is therefore very important to secure information by impartial investigation conducted under the direction of the comptroller or the appropriating body, in order that the adequacy or inadequacy of the departmental requests may be determined. For instance, the departmental chiefs often make excessive requests for increases in salaries and wages and for additions in force. It is the duty of the examiners to find the actual conditions or facts existing within the departments, and see if they can be used to support the departmental requests.

Each examiner should therefore become acquainted with the individuals employed in the departments, should observe the work they are doing and be able to report from personal knowledge concerning the individual merits of employees. More than this, he should make a careful study of the organization of every division and sub-division in the department assigned to him. He should study the work of the various groups and see whether it is being done efficiently or inefficiently, whether or not it could be done with fewer men. This is a very important point to remember, because at the budget committee meetings the examiners may be asked to describe in detail the work of each employee in a department. Generalizations are not accepted. Whenever such information is required it must be specific. Examiners should therefore have a memorandum giving the name, the

title and the actual duties of each employee, with such other facts as have a bearing upon the necessity for the services of such employee or the rate of compensation therefor. The information they furnish should not be in the nature of a slightly elaborated civil list, simply showing the names, titles, dates of original appointment and promotion, but must show *the vital facts*.

With knowledge of these facts, the examiners are able to go over the forms filled out by the departments and to judge if the requests made by them for increases and decreases in wages and salaries, and for additions and reductions in force are reasonable and justifiable. If they are, they are recommended to the budget committee of the board of estimate and apportionment; if they are not, they are disapproved.

III. *The Problem Reducible to Seven Simple Elements.*—

The main thing the examiners ought to know is the amount of money the city should appropriate for the efficient operation of governmental machinery, the adequate maintenance of city property and the construction of necessary and desirable improvements. The problem naturally reduces itself to seven simple elements, as follows:

1. Work.
2. Workers.
3. Rate of Pay.
4. Tools.
5. Supplies.
6. Materials.
7. Prices of Tools, Supplies and Materials.

The first and most important fact to be determined is the volume of work to be done, which should be expressed in standard units of measure and should be divided into classes according to the nature of the thing to be done.

The next most important fact to be determined by the examiners is the number of employees necessary to do the work, the employees being divided into classes according to the nature of the work they have to do. But before they can determine how many employees are necessary, the examiners must ascertain the number of units of work the average employee of each class ought to perform in a day. After this is done, they then determine the number of days of work for each class of employees to do, and by fixing the number of working days in a year they determine the number of workers necessary.

The rate of compensation for each class and grade of employee is the next step. For this, the examiners rely largely upon the committee on standardization of salaries and grades, but they must make independent recommendations.

The tools must be considered in connection with the volume of work and the number of workers. By using the most modern equipment, the number of workers may be materially reduced. Best tools should be provided at the lowest possible price.

The question of supplies is more important than ever before, because of the enormous savings that can be made in this one item of expenditure if the quality, price and quantity of supplies can be properly controlled. The examiners are required to make sure that all the necessary supplies are purchased at the lowest possible prices.

It is not so difficult to ascertain the proper quantities of materials as it is to ascertain the proper quantities of supplies, for the reason that materials cannot be so easily wasted or misused. However, it is a large part of the examiners' problem to ascertain just the kind, the quantity and the proper prices of materials needed to do the work.

The examiners should study work methods and seek to

introduce into all departments the methods which have demonstrated their superiority.

The important facts which should be determined by the examiners can be restated in more detailed form, as follows:

1. Number of units of work to be done.
2. Classes of employees necessary to do the work.
3. Number of units of work to be done by each class of employees.
4. Number of units of work the average employee of each class ought to perform in a day.
5. Number of days of work for each class of employees.
6. Rate of compensation for each class of employees.
7. The kind, quality and quantity of supplies, material and equipment necessary for the performance of the work to be done.
8. Lowest market prices for all the kinds of supplies, materials and equipment.
9. The best methods of performing the work.

An intelligent coördination of all these facts would form the soundest basis not only for budget appropriations, but for departmental administration. In securing all these facts, it is absolutely necessary to procure the coöperation of the departmental head and his subordinates. It will be necessary to make a thorough study of the organization and the working methods of departments, and if such a study is to produce good results, it must be made with the sympathy and support of departmental heads. But there can be no sympathy and support unless the examiners can convince them that they are not trying to usurp their authority but that their sole purpose is to help them and to help the city. The examiners would defeat their own purpose if they should approach the departmental heads with the arrogant assumption that they know all there is to know about certain kinds of work and overlook the fact that a depart-

mental inspector who has been inspecting construction work for twenty-five or thirty years knows the duties of his position as well as the examiners themselves. The only advantage the examiners in the finance department have over the departmental inspectors is that they have had a more varied experience than any other inspectors in the city, because they have been required to pass upon every variety of engineering work. Thus, they are in a position to witness the activities of all departments, to contrast the good with the bad and to make profitable use of the mistakes of one department and the high accomplishment of another. Moreover, through the dissemination of important facts, they can give the departmental officials a bird's eye view of the activities of the entire city, so that they may profit by the best examples before them. It has been found to be a fact that departmental employees are very anxious to learn the best methods. They know there may be easier and cheaper ways of doing the things they are doing—ways which they have not found, but which some other man in another department or another city has discovered. It is the business of the examiners to make departmental employees familiar with the better methods.

CHAPTER III

HEARINGS ON, VOTING, FUNDING AND ADMINISTERING THE BUDGET

A. HEARINGS ON THE BUDGET

I. *Publicity through the Press, Budget News Bulletins and the City Record.*—It is of great importance to publish the departmental estimates in the *City Record* far in advance of the public hearings on the tentative budget, in order to arouse the interest of the citizens. Failure to do this will lead, and has led in the past, to an insufficient discussion of the departmental requests. Although about one million people visited the budget exhibit held in 1911, the public interest in the budget itself seemed to be small, as was shown by the fact that less than twenty-five citizens attended the first of the two public hearings in that year. At this hearing, almost the entire discussion was concerned with the opposition of the real estate interests to any increase for the tenement house department. The second hearing was marked merely by a heated debate on the proposal for the establishment of seventy-one municipal milk stations. The reason for the lack of public interest in the budget was that the newspapers did not make a conspicuous announcement of the public hearings. Many of the departmental estimates were not even published in the *City Record* for distribution until October 27th, the very day on which the public hearing on the tentative budget took place.¹

¹ See an article, *Nearing the \$200,000,000 city*, in *Survey*, 1911-12, 27, pp. 1184-1187.

To-day, in addition to the publication of estimates in the City Record, information about budget-making is furnished to the public by the board of estimate and apportionment through a series of publications called "the Budget News Bulletins." After the departmental estimates are received and analyzed in detail by the examiners in the bureau of municipal investigation and statistics of the department of finance, comparisons of the amounts requested for 1914 with the amounts allowed for 1913 are made and printed in the Bulletins, showing the increase or decrease in the amounts requested and allowed for each functional unit of the various departments, bureaus and offices within the city and county governments. The amounts requested for personal service are distinguished from those requested for expenses other than personal service, such as supplies, materials, equipment, etc.

These bulletins are printed and distributed from time to time during the month of October among the various taxpayers' associations and other civic organizations, in order that the contents may receive sufficient consideration from the public before the tentative budget is presented to the board of estimate. The latter is desirous of receiving assistance and coöperation from these organizations in the way of constructive suggestions which may prove valuable in preparing the tentative budget for its own consideration.

In speaking of the actual cost of maintaining each department in the preceding chapter, I pointed out that, heretofore, all published statements as to the cost of maintenance of the various departments and offices were based solely upon budgetary allowances. For this reason, they do not show the exact conditions of departmental expenditure, because not all of the sums included in the budget appropriations are expended, the balances returning to the general fund for the diminution of taxation, and also because in

many cases, the budgetary appropriations are every year augmented by the issue of special revenue bonds, amounting approximately to \$5,000,000 per annum. The expenditures from the special revenue bond funds are substantially all for regular maintenance, but they are not allocated in the budget by departments. Therefore, in the first number of the News Bulletins, there were printed some expenditures statements, in which the disbursements from the special revenue bond funds were allocated by departments, in order to ascertain the real cost of maintaining them.

In addition to the expenditures made directly from specific budgetary appropriations and the proceeds of special revenue bonds, there are also certain administrative and maintenance expenses which are met out of special funds not in any way reflected in the yearly budgets, as, for instance, in the department of water supply, Brooklyn, where approximately \$2,000,000 is spent each year from the revenues of the department. No actual cost of maintenance and operation of the various departments can therefore be shown unless all these extra-budgetary appropriations are taken into account. The information necessary to showing the actual cost is furnished by these News Bulletins.¹

II. *Publicity Through Budget-Exhibit.*—In 1910 and 1911, about four weeks in advance of the public hearings on the tentative budget, New York City held what is known as the Budget Exhibit, which proved to be a valuable short cut in training the citizens in the art of studying municipal affairs and analyzing municipal expenditures. With the size of the population and the complexity of the city government, involving each year an expenditure of approxi-

¹ There were published in 1913 a series of five News Bulletins, which not only gave full information regarding the actual condition of departmental expenditures, but also furnished the basis on which to calculate the departmental needs for the following year.

mately \$200,000,000, an average man would find himself lost in the intricacy of municipal affairs, and unable to estimate what had really been accomplished in return for the millions of taxes spent. He would not be able to understand the voluminous official reports, even when put in the abridged form seen in the newspapers. On the contrary, in some cases, they add only to the perplexities in regard to city affairs. The Budget Exhibit, with its charts, maps and tabulations, served to inform the public of what has been done with the taxpayers' money, by fixing the principal outlines of work in the mind pictorially, "thus creating a background of general intelligence, against which the citizen can follow the daily affairs of the city in his newspapers."¹ As to the maps, charts, etc., a few examples may be taken to illustrate their efficacy and usefulness. For instance, they showed that certain departments had paid \$10.00 for twenty Welsbach burners, which were bought by the Bureau of Municipal Research for only \$5.20; had paid \$10.40 for twenty-six gas mantles for which the bureau paid only \$5.20; had paid \$3.00 for a gas fixture which was sold in the market for only 45 cents. They also showed that in 1907, it cost the city \$19,707.25 to keep the City Hall "clean," while an offer had been received from a cleaning company to do the same kind of cleaning for the city for \$1,800 a year.²

The Budget Exhibit served not only to inform the public of the municipal expenditures, but also to enable the fiscal authorities to get facts. "It is more true that the members of the board of estimate and apportionment are anxious to have facts submitted by taxpayers and more ready to consider these facts frankly and critically than are taxpayers to

¹ *Brooklyn Eagle*, October 2, 1911.

² *Outlook* 90, November 7, 1908, p. 512.

present the facts. This is not strange because it costs money to get facts."¹

The idea originated by New York City of holding a budget exhibit has been adopted by about a dozen other cities. In Chicago, for example, there was held in September, 1911, a large and most comprehensive exhibit, known as the International Municipal Congress and Exposition. During 1912, many other cities, including Cincinnati, Philadelphia, Chicago, and Greenwich, Connecticut, held exhibitions of a similar character, although sometimes not so comprehensive in scope as that in New York City. It was soon discovered that "to make an effective exhibit of all the city departments at one time was an expensive and difficult undertaking." Consequently, a new plan has been devised under which the city departments are to be taken up one after the other, in order to show to the taxpayers in a more simple way just what the departments under exhibition had done and are required to do. Thus, the Child Welfare Exhibit and the Fire Exposition in New York City, the Health Exhibit in Chicago, the Water Conservation Exhibit in Philadelphia, and the Educational Exhibit in Greenwich, Conn., are some of the most notable instances of the new plan.² One of the most profitable features of these municipal exhibitions is the public lectures given by the heads of the city departments concerned.

III. *Public Hearings on the Estimates.*—The tentative recommendations made and submitted by the examiners to the board of estimate and apportionment should now receive proper consideration. Trusting that the taxpayers are thoroughly informed by the press, Budget News Bulletins and budget exhibit, the budget committee of the board

¹ *Herald*, October 1, 1911.

² *The American Political Science Review*, vol. vii, no. 1, February, 1913, pp. 107-108.

designates certain days for hearings on the estimates. These hearings are attended by commissioners and other representatives of the departments on one side and the examiners of the department of finance on the other. The former argue for the estimates as they are and the latter argue for the estimates as they think they should be. In 1913, these hearings were held from October first to October thirty-first, the very day on which the budget is required by the charter to be voted by the board of estimate and apportionment. A separate hearing is held for each department, in order to enable the taxpayers to make a careful study of the estimates of each department, so that they can demand facts to prove either that the requested increases are absolutely necessary or that reductions cannot be made below the appropriations for the current year.¹

IV. *The Tentative Budget and Hearing.*—While the budget exhibit is going on, or while the estimates published in the City Record and Budget News Bulletins are analyzed and studied by the taxpayers and while public hearings on the estimates are held, there is in process of preparation a tentative budget under the direction of the board of estimate and apportionment. Its object is to show what the members of the board propose to vote for, unless the taxpayers have reasons to ask for adjustments. That is to say, the recommended additions and reductions are granted, unless the taxpayers cause them to change their minds. Thus, the tentative budget for 1914, as prepared by the budget committee, shows a total decrease of \$4,639,196.35, which is made up of a cut of \$3,796,717.92 in the tax levy portion of the budget and \$842,478.43 in that portion of the budget chargeable to funds other than tax levy. However,

¹ See a leaflet, *No Matter Who is Elected*, no. 20, published by Bureau of Municipal Research, Oct. 4, 1913.

this figure is arrived at without taking into consideration the three appropriations for the department of education, charitable institutions and debt service.¹ These large reductions are the result of a systematic study of departmental organization and departmental needs, which was made under the direction of the Budget Committee by a permanent staff of engineers, examiners and expert accountants in the bureau of municipal investigations and statistics in the department of finance. The reduction in the other funds portion of the budget, though smaller in amount, is nevertheless a good indication of the city's efforts to secure an economical administration, because a reduction of a single dollar borrowed for fifty years is in its effect equal to a reduction of three dollars, because every dollar borrowed on a fifty-year bond imposes a burden upon the taxpayers three times as heavy as that imposed by a dollar raised by taxation. For this reason, the reduction in the salary and wage schedules chargeable to corporate stock is of more essential importance than a reduction in the tax levy portion. If it is impossible to make a reduction in the corporate stock allowance, it would still be more economical to transfer the charge from corporate stock to tax levy accounts. Realizing the importance of this principle, the board of estimate and apportionment transferred for 1914 the topographical bureaus of four boroughs and other forces heretofore charged to corporate stock to tax levy accounts.

The public hearing on the tentative budget is a unique feature of budget-making in New York City. It is practically unknown except in New York and was not known

¹ See a pamphlet, *The Tentative Budget for 1914*, published by the Board of Estimate and Apportionment, p. 1.

² *Ibid.*, p. 2.

even in New York until 1908.¹ Civic organizations and taxpayers' associations appear to argue for or against the tentative allowances. While arguing that the departmental estimates are in excess of the probable budget, the burden of proof rests on the taxpayers; but when the provisional budget is under discussion, the burden of proof rests on the city officials who are about to vote for it, because they must give reasons why they vote for it. The tentative budget is now published far in advance of the public hearing on it in order to permit analysis and discussion by the taxpayers and citizens whose interests are affected by it.

B. VOTING THE BUDGET

I. *The Procedure of Voting.*—After all the arguments for and against the tentative budget have been heard, and necessary changes made, it is then put to vote by the board of estimate and apportionment, composed of the mayor, comptroller, president of the board of aldermen, and the presidents of the boroughs of Manhattan, Brooklyn, the Bronx, Queens and Richmond. The mayor, the comptroller and the president of the board of aldermen are each entitled to cast three votes; the presidents of the boroughs of Manhattan and Brooklyn, to cast two votes each, and the presidents of the boroughs of the Bronx, Queens and Richmond, to cast one vote. The Charter does not specifically state how many members of this board shall constitute a quorum, but it does say that a quorum of this board should "consist of a sufficient number of the members thereof to cast nine votes, of whom at least two of the members hereby authorized to cast three votes each shall be present."² The budget is determined upon by resolution

¹ See an article, *How to Keep Watch on the City Budget*, by William H. Allen, in *Standard Real Estate Annual*, no. 2, vol. 2.

² New York Charter (Greater New York), section 226.

adopted by majority vote, before midnight October 31st. Within five days after being adopted by the board of estimate and apportionment, it must be submitted to the board of aldermen, which body is given power to reduce or eliminate any items but may not increase or add to the budget as passed by the board of estimate. Action by the board of aldermen is required to be taken before November 25th. The budget is then submitted to the mayor, who may veto any action taken by the board of aldermen, but that body, by a three-fourths vote, may pass the budget over any veto of the mayor.

II. *Cutting Down the Yearly Increase as a Result of Budgetary Reforms.*—The object of a segregated budget, as we know, is to eliminate those items which represent waste. Indeed, segregation in New York City has resulted in cutting down the net increase every year from \$13,000,000, as was the case in 1906 and in 1907 to less than \$4,500,000 in 1908.¹ In 1909, the payrolls which had been padded for unlawful purposes and which grew up to the immense figure of \$90,000,000 in 1912, were for the first time scheduled and itemized. In the following year, the same method of scheduling and itemizing appropriations was applied to the purchase of supplies for all the departments, costing the city over \$22,000,000 a year. Thus, the methods by which payrolls had been diverted were revealed and checked by functional segregation and their balances which had hitherto been employed to augment the salaries of favorites, were credited to the general fund for the diminution of taxation. Thus, in 1909, with only a partial segregation, the unexpended salaries and wages, which were turned back into the general fund, aggregated \$1,081,748 as against

¹ See *Proceedings of the 17th National Conference for Good City Government, and the 15th Annual Meeting of the National Municipal League*, p. 289 under the the subject of Municipal Research.

\$314,760 in the year previous. In 1910, they amounted to \$1,958,730; in 1911, \$1,391,185.¹ Further, the increases in the salary and wage appropriations, averaging \$4,000,000 to \$5,000,000 annually, have been reduced to an average of \$2,662,744 for the three years previous to 1912, apart, however, from the mandatory increase of \$3,850,000 as required by the Teachers' Equalization Pay Bill.²

The result of a segregated budget is better shown by the very small percentage of increase in the 1914 budget over the 1913 budget. Fifty divisions of the city government have been allowed less money in 1914 than in 1913; yet this reduction was regarded as the best way to get more and better service. The total budget increase for all departments not including a \$3,000,000 increase for public schools is more than offset by the budget reductions, and it is said that they illustrate the principle of increasing the quality and quantity of work with less money. Moreover, these reductions include \$4,250,000 for continuing teachers' equal pay for equal work and raising the minimum salary for policemen and firemen from \$800 to \$1,000,³ over \$450,000 for additional patrolmen and innumerable other extensions of service, such as milk stations, efficiency bureaus, efficiency staff, bureau of fire prevention, clearing house for feeble-minded, etc., and nearly \$2,000,000 legally mandatory increases, apart from teachers' increments.

\$1,300,000 was taken from the 1913 allowances and \$8,000,000 was cut from the 1914 budget estimates, not "with an axe," but after a very careful study of the real needs of

¹ *Annual Report of the New York Chamber of Commerce, 1912-13*, p. 48.

² *Ibid.*

³ See a leaflet, *Budget Reminders and Remainders*, issued by the Bureau of Municipal Research, November 1, 1913.

the departments, conducted by non-partisan and non-elective employees who work in the interests of the taxpayers. For instance, \$492,000 was subtracted from the water department, resulting from a coöperative study by the department itself, by the official bureau of municipal investigation and statistics, and by the unofficial Bureau of Municipal Research. Similarly, \$600,000 was cut from the school salary accruals, \$292,000 from docks and ferries, \$30,000 from Manhattan parks, \$93,000 from Brooklyn parks, \$40,000 from the Bronx parks, \$39,000 from Queens parks, \$20,000 from the Manhattan budget which had already been many times decreased, \$216,000 from Richmond, \$142,000 from finance department, \$54,000 from the board of estimate, \$42,000 from the board of aldermen, \$10,000 from the law department, \$38,000 from the City Record, \$76,000 from street cleaning, \$12,000 from public charities, \$179,000 from the bridge department, \$42,000 from the tenement-house department, \$142,000 from the fire department, \$5,000 from the ambulance service, and \$842,000 from payrolls heretofore charged to corporate stock. All these cuts, not below the estimates, but below the 1913 spending base, were made as a result of painstaking study. \$192,996,000 was the final budget for 1914, including \$1,252,000 for city debt increase, showing a total net increase of \$284,000 above the 1913 budget.¹

The result of budgetary reforms is still more vividly shown in the amount of decreased annual increase for city purposes. In comparing the following figures, it is important to remember that New York City began the application of scientific methods to budget-making in 1908.

¹ See a leaflet, *op. cit.*

1903-8	8.38% increase
1908-13	5.25% "
1910-13	4.23% "
1913-14	1.83% ¹ "

III. *Double Responsibility of the Elective Officers.*—It is certainly in violation of the fundamental principles of a democratic form of government to place the power to vote money in the hands of those who are authorized to spend it. Such a blending of powers, however, seems to have been sanctioned by the long-observed custom in New York City that all matters relating to the finances of the city shall be decided by the eight elective officers constituting the board of estimate and apportionment. The mayor, the comptroller and the president of the board of aldermen are elected by the voters of the city, while the five borough presidents are elected by the voters of the five boroughs respectively. Individually, they assume the spending responsibility, whereas collectively, they shoulder the voting responsibility.² We shall presently see to what extent they are each responsible for spending money.

IV. *Controllable and Uncontrollable Budgetary Items.*—The double responsibility of the board of estimate and apportionment leads people to believe that New York City, though governed by a mayor, has really taken on a commission form of government, because almost all the powers of regulating the city's affairs are lodged in the board of estimate and apportionment. It has the entire power to make the annual budget, subject only to reduction by the board of aldermen. This view is, however, far from being true.

¹ See a leaflet, *Scientific Budget-making vs. Rule-of-thumb Budget-making*, published by the Bureau of Municipal Research, Nov. 12, 1913.

² See a leaflet, *No Matter Who Is Elected—No. 14*, on Democratic platform promises of economy and efficiency in spending money, Bureau of Municipal Research, Aug. 23, 1913.

The budget is made up of both controllable and uncontrollable expenditures, i. e., of mandatory and discretionary items. The former are fixed by the acts of the legislature and are therefore beyond the control of the board of estimate. A good illustration of this is the three-mill tax which the city must levy for educational purposes, or the legally binding commitments, such as the debt service. The latter are those items which the board of estimate and apportionment may deny, but never does, as for example, the minimum allowances for running the necessary business of the city or those providing for the extension of activities or the enlargement of working forces.

The largest item of expenditure, which is controllable in its origin, becomes uncontrollable once the initial step is taken, *vis.*, the debt service. The growth of the city debt charge is responsible for approximately one-third of the growth of the total budget. In 1913 it amounted to \$54,977,381.34, or 28.53 per cent of the total budget.

The next largest item in the budget is for educational purposes. In 1913, the budget for the department of education was over \$35,000,000. Of this sum, about \$24,500,000, or approximately 70 per cent, was a mandatory charge representing the product of the three-mill school tax. Since 1908, the discretionary part of the school budget has increased \$4,265,321.83, or 67.41 per cent.¹

The third uncontrollable item in the budget is the state taxes which amounted to \$7,947,031.96 in 1913.² Economy in the expenditure of the state funds, though in a large measure governed by the people of New York City, is nevertheless entirely independent of the city authorities.

¹ Henry Bruère, *Cost of Government in N. Y. C.*, published by Record and Guide Company, New York, 1913, p. 9.

² *Ibid.*

The fourth uncontrollable item is the mandatory impost on the New York City taxpayers for county purposes, amounting to \$6,234,661.86.¹ Nominally, the regulation of the county expenditures is within the power of the city officials, but practically the control is exercised by the legislature.

In addition to these four mandatory items, there are numerous others of the same nature, as for example, the city's contribution to the police pension fund. This contribution amounted in 1913 to \$1,264,538.34.²

The deduction of the foregoing items from the total budget for 1913 leaves approximately \$85,000,000 as the portion of the budget over which the members of the board of estimate individually or collectively had more or less complete control.

The mayor has full power to compel economy in certain departments, partial power in others and only moral influence over a considerable proportion of the expenditures. As the mayor occupies a commanding position in the administration of city affairs, this moral influence can be made very powerful. He has complete control over 54 per cent of the expenditures for city purposes through the use of his power of appointment and removal and incomplete control over 38 per cent. Concerning a considerable portion of the latter, however, his instructions and policy would be accepted. It is therefore incumbent upon him to explain all the increases in this part of the budget.

The power of the board of estimate and apportionment is negative rather than positive, because it can refuse the requests for all non-mandatory appropriations but cannot

¹ See a pamphlet, *Will Taxes Increase in Greater New York*, published by Bureau of Municipal Research, Dec. 31, 1913, p. 11.

² Henry Bruère, *Cost of Government in N. Y. C.*, p. 10.

supervise their expenditure, although it may set up a standard of efficiency according to which they may be spent.

The presidents of the five boroughs constituting the City of New York are responsible for only 4.84 per cent of the annual expenditure for city purposes and the comptroller is responsible for only .87 per cent. The latter is the chief financial officer and general auditor of the city, and is in a position to prevent waste, but not to supervise expenditure. During the last administration (1910-1914), the most notable instances of economy are found in the departments under the control of the borough presidents. Although the very low level of administration is partly accountable for the economy, it must be admitted that these departments were committed to the policy of saving money at the very outset of the past administration. The ratio of increase in the mayor's departments outruns the ratio of increase in the offices of the borough presidents by five times. The increases in the former have been explained in many ways. For example, the redefinition of the work of the bureau of weights and measures and the office of the commissioners of accounts has caused an increase in the appropriations for them. The activities of the health department have been expanded. In part, the increases in this and other departments reflect the normal expansion of activities, notwithstanding the fact that they also involve a percentage of "slack" due to the continuance of inefficient methods and unnecessary employees. The city's opportunity for making a saving in expenditures lies in the original totality of expenditures, which serves as the basis for yearly increases and not merely in the yearly increases themselves. This totality represents the cost of operating the municipal institutions built up through a process of slow accretion, and it is to this that attention should be directed in the effort to make important economies in city expenditure.

C. FUNDING THE BUDGET

I. *Transmission of the Budget for Funding.*—The budget, as voted by the board of estimate and apportionment and finally approved or amended by the board of aldermen and the mayor,¹ is transmitted by the comptroller during the month of February to the board of aldermen. Accompanying the budget are four certificates from the comptroller, showing:

1. "The aggregate amount of the budget for city purposes for the current year."

2. "Amount of county charges and expenses for the respective counties included in the budget for the current year."

3. "Amount of the county charges and expenses for the respective counties paid during the preceding year from the proceeds of special revenue bonds."

4. "Estimated revenues of the general fund for the reduction of taxation during the current year."² This fund is composed of the following items:

(a) Balances carried over from the preceding year.

(b) Estimated amounts of special taxes, such as excise tax, mortgage recording tax, bank tax, etc.

(c) Estimated amounts of revenues other than taxes, such as commissions and fees, sales of surplus property, interest on delayed payments to the city, etc.²

II. *The Means of Funding.*—New York City has to maintain either entirely or partly three different governments, *viz.*, the state government, the government of the counties comprised within the city limits and the city government

¹ See the report of the Finance Committee of the Board of Aldermen to the Board of Aldermen, on the 1914 budget.

² See a leaflet, *No Matter Who Is Elected—No. 7, why do taxes increase in spite of increased economy and efficiency in city departments*, July 12, 1913.

proper. That part of the budget which is appropriated to the state administration is always treated according to the usage prevailing in New York City either (1) as an item of expenditure for each of the four counties, or (2) as an item of expenditure for the city as a whole. Accordingly, the budget now consists of only five divisions, instead of six.¹ Of these five divisions, that for the city proper is the most important by reason of the fact that it is by far the largest in amount. In 1913, the budget appropriations for all four counties amounted to \$6,712,297.01, those for the state to \$7,947,031.96, and those for the city proper to \$178,529,747.34.²

The principal means of funding all these budgetary appropriations is by the taxation of real estate, real estate of corporations, special franchises and personal property. The assessment rolls of real and personal estates, as prepared by the department of taxes and assessment, are presented to the board of aldermen on March first of each year, in accordance with section 907 of the Greater New York Charter. The board of aldermen then proceeds to fix the tax rates, and on or before the twenty-eighth day of March transmits the rolls to the Receiver of Taxes as required by section 911 of the Charter. This allows him ample time to collect taxes which are now payable semi-annually on May first and November first.

As the subject of taxation will be fully treated in the second part of this book, I will not here enter upon a lengthy discussion of it. It suffices to say that the annual tax levy generally falls short of the total amount called for by the budget, due to the use of the general fund for

¹ See a pamphlet, *Will Taxes Increase in Greater New York*, published by Bureau of Municipal Research, December 31, 1913, p. 11.

² *Ibid.*, pp. 14-15.

the reduction of taxation. As the exact amount of this fund in the year is unascertainable at the time the budget is transmitted by the comptroller to the board of aldermen, it is estimated mainly upon the basis of the previous year's collection.¹

Owing to the collection of taxes in New York City late in the fiscal year, it has become a fixed habit with the city's fiscal officials to have the budget financed by borrowing money on revenue bonds and bills. The difficulty of financing the tax levy budget and related operating expense has been largely relieved during the past three years by the new plan of semi-annual tax-collection, devised by the present comptroller. Legislation authorizing this plan was obtained in 1911 and went into effect in the following year. As an illustration of its effect upon the financing of the city's current budget, it may be stated that from May first to October first, 1912, \$81,216,235 of the taxes of that year were paid into the office of the receiver of taxes on account of the levy of 1912, and during the corresponding portion of the preceding year (1913), \$79,585,732 were similarly paid.²

Under the old system of tax collections, no taxes could have been paid into the receiver's office until the first Monday in October of each year, as provided in the Charter. The result was that the comptroller was obliged to borrow money in order to finance the current administrative and operating expenses. Of course, he makes borrowings even under the new system, but they are about \$80,000,000 less now than they would be if the old system were still in vogue.

¹ *Budget News Bulletin*, no. 2, issued by the Board of Estimate, Oct., 1913, pp. 5-6.

² *Financial Summary* for the year, Jan. 1, 1913 to Dec. 31, 1913, issued by the Comptroller, p. vii.

The direct interest saving to the city during the year 1913 was fully \$1,260,000 from this source alone.¹

D. ADMINISTERING THE BUDGET

The most scientific method of budget-making may be of no avail, unless the budget, after it is finally determined, is efficiently administered. Strict enforcement of the budgetary provisions restricting the use of money should be required of the city officials. No claims against appropriations should be allowed unless they are properly chargeable against them. Liabilities against each and every account in the budget should not be allowed to exceed the amount of money in it. The *pro-rata* restriction as to salaries and wages should be carried out. As it is not always possible to foresee all contingencies which may arise several months hence, the original appropriation for a specific purpose may subsequently prove inadequate. It is therefore necessary to make an adjustment of accounts, with the permission, of course, of the appropriating body. As the last part of this book is partly devoted to the discussion of administrative control over expenditure, it is hardly necessary to discuss it here in great detail. It is hoped, however, that these few lines may serve as a connecting link between this and the last part.

¹ See the *Financial Summary* for 1913, issued by the Comptroller.

PART II
THE SYSTEM OF TAXATION

CHAPTER IV

THE REAL ESTATE TAX

THE annual budget having been made, the next step is to execute it or to "fund" it. The principal means of "funding" it is through the taxation of real estate, the real estate of corporations, special franchises, personal property under the general property tax, and some special classes of personal property under the system of special taxation. As the real estate tax is the main source of revenue in New York City, I deem it appropriate to devote one entire chapter to a thorough discussion of it, leaving the other taxes to be treated in the next chapter.

A. SEPARATION OF STATE TAXATION FROM LOCAL TAXATION

The State of New York levies most of its taxes on corporations, leaving real estate to the municipalities for local taxation. One reason for this policy is that the general property tax has broken down and has been found unsuitable to the conditions now existing. The very fact that this tax is based on wealth, and not on ability, proves its great weakness. Under this system, all wealth, regardless of the income it affords, is uniformly taxed. No wonder that the tax works injustice on many classes of people. Some of the principles underlying a good system of taxation are universality, or the diffusion of the tax equitably over all classes of property; uniformity, or the equalization of taxes; and proportionality, or the adjustment of the burden of taxation so that it shall be in proportion to the individual's ability. The general property tax lacks universality,

because it fails to reach personal property. It lacks uniformity, because properties of equal values are unequally assessed, it being easier to reach and tax certain classes of property than others. It lacks proportionality, in that the burden falls more heavily upon those who are less able to bear it.

Under a rational system of taxation, personal property must be taxed separately from real estate. The taxation of the latter must be delegated to the county, city or town exclusively, because they are the smaller political units, the source from which the land values spring. The system which allows local assessors to fix the values and the state authority to tax them at a uniform rate is bad, as it tempts local assessors to underestimate the values of their respective localities in order that they may be benefited at the expense of their neighbors. The state should be satisfied with the personal property tax only, *i. e.*, a tax on productive personalty. It is true that it will be very difficult, with the present method of taxation, to reach all of the personal property. But the experience of New York State in recent years has proven it to be possible to reach a large percentage of productive personalty, if a proper classification be made of it and a special rate, appropriate to each class, be levied upon it. This is greatly facilitated by the fact that the bulk of this property is now in the hands of corporations incorporated under the state laws.¹

As a result of the new policy, the total taxes now paid by personal property are much greater than could have been collected under the old plan. A large proportion of these special taxes is spent for state purposes, and only the balance goes to the general fund of the city. But the city receives a benefit from the large percentage of special taxes

¹ *Proceedings of Conference held to consider the Question of Tax Reformation, at Richmond, Va., Jan. 20-21, 1914.*

paid to the state, as the amount of direct state taxes distributed among the counties is reduced. As New York City pays these direct taxes for the counties included therein, its burden is therefore lessened. From 1908 to 1911, inclusive, there was no general state tax, all of the revenue required being obtained through special taxes.¹

B. RELATIVE BURDEN OF TAXATION ON REAL ESTATE AND ON PERSONAL PROPERTY

From the foregoing, it is clear that New York City must largely depend upon real estate for the raising of money to run the government. As a matter of fact, ninety-six per cent of the direct taxes are paid by the owners of real estate and only four per cent by the owners of taxable personal property assessed under the general property tax. Thus, although the city has not succeeded in relieving improvements of their heavy burden of taxation and adding it to the burden on the land, it is certainly moving in the right direction when it imposes ninety-six per cent of local taxation upon real estate. This is justifiable, since the benefit from the proper expenditure of municipal revenue is reflected in the real estate values. These expenditures do not increase the value of the buildings and improvements while they add immensely to the value of the sites on which the buildings stand. The only effect that the expenditure of public money has on buildings is to cause a much greater demand for them and extensive building operations to satisfy this demand. The site values rise with each dollar properly expended in city betterment and grow at a steadier rate than the expenditure for the betterment. Thus, the expenditure of a million dollars for highways may augment the values of sites by ten or twenty millions of dollars, by

¹ See a pamphlet, *Will Taxes Increase in Greater New York?* published by the Bureau of Municipal Research, Dec. 31, 1913, p. 70.

reason of their becoming accessible to the business centre or usable to the community, while they were formerly inaccessible and unusable.

Imposing 96 per cent of the city tax on real estate is also justifiable on the ground that the value of the land *per capita* in New York City, as the record shows, is \$915 and the improvement value *per capita* only \$533.¹ For a number of years these figures have remained almost the same. Thus, as the population has increased year by year, the *per capita* figures have not materially varied. Hence, it follows that every child born in New York City adds \$900 to the value of the land and every person who comes into the city and resides there contributes an equal amount, and that to house every baby or other new resident causes an expenditure of \$500 in new buildings. Furthermore, the privilege of furnishing each baby with the so-called public services represented by electric light, gas and telephone service, and the transit facilities, is immediately capitalized at \$135,² as evidenced by the records of special-franchise assessments.

C. INCREASE OF ANNUAL TAXES *versus* INCREASE OF REAL ESTATE VALUES

The placing of the main burden of taxation on real estate can be justified on another ground, *i. e.*, the increase of real estate values is far greater than that of annual taxes. Thus in 1899, the first year of Greater New York, the aggregate amount of taxes was \$86,183,768, whereas in 1908, it was \$116,542,896, showing an increase of 35.2 per cent. The question is whether the increase in real estate values kept pace with the increase in taxes or exceeded it. This may be answered by comparing the assessed value of real estate

¹ *Pacific Municipalities for 1912*, p. 510.

² *Ibid.*, p. 511.

in 1899, which was \$2,932,445,464 with that in 1908, which was \$6,722,415,789. The increase in real estate values during the nine years has therefore been 129 per cent, or over three and a half times the proportionate increase in total taxes. This comparison is, however, not quite accurate, because real estate was assessed according to the State Equalization Board, at only two-thirds of its value in 1899, and at actually 90 per cent in 1908. If the valuations of both years be brought to 100 per cent, the figures would be as follows:

Real estate values in 1899	\$4,398,668,196
Real estate values in 1908	7,469,350,876
Increase	3,070,682,680
or 69.8 per cent.	

From the above, we conclude that real estate values have gone up by 69.8 per cent, while the total taxes, by only 35.2 per cent.¹ The burden of taxation on real estate is therefore not so heavy as people think it is.

D. THE DEPARTMENT OF TAXES AND ASSESSMENTS

The Department of Taxes and Assessments is created by the city's charter, and charged with the duty of assessing and appraising the value of property in the city, both real and personal; it does not, however, levy or collect taxes, for they are levied or collected by other bureaus or departments of the city. At the head of the department are seven commissioners appointed by the Mayor and holding office during his pleasure. Under them are seventy odd deputy commissioners, appointed by the Tax Board from a list certified to by the Civil Service Commission, the persons listed being successful candidates for civil service employment at

¹ *New York City's Progress towards Civilisation—The Facts about Taxation*, Communication addressed by John Martin to Hon. Owen Cassidy, Chairman of the Joint Legislative Committee appointed to examine into the Finances of New York City, 1908, p. 5.

a very rigid examination. To these deputy commissioners is entrusted the work of assessment and appraisal.

E. BLOCK AND LOT MAPS

For the purpose of assessments or appraisals, as well as for the benefit of the deputy commissioners, the entire city is divided into tax districts to each of which is assigned a deputy commissioner. A very large district, however, has more than one deputy. A survey is made of the whole city by the surveyors and maps for each tax district or section are drawn, in order to make sure that not a single inch of land within the city limits escapes assessment or appraisal. Each district or section is divided into blocks and a block may be defined to be a piece of land bounded on all sides by public roads or streets. Each block is again subdivided into lots, all of which are numerically indicated. The surveyors make a good use of recorded deeds and other instruments filed with the county Register, which furnish information as to the boundary lines of each separate lot within a block, thus enabling them to draw the original maps, which are later officially adopted by the Department of Taxes and Assessments. In cases where one lot is split into two or more lots, or two or more lots are consolidated into one lot, no cognizance will be taken of such a fact, unless the recorded deeds are produced.¹

The block and lot maps are a great aid to the deputies for the following reasons. In the first place, when a community changes from a rural town to a commercial city, it ceases to deal with large farms and large areas, but begins to deal with small compact city lots. A very small city lot may be equal in value to a very large farm. Every foot and every inch, which may be entirely neglected in judging

¹ *The Single Tax Review*, special number, vol. 13, no. 1, Jan.-Feb., 1913, pp. 63-64.

the value of a farm, becomes of great value when added to a city lot. For this reason, the city needs an official map, accurately planned and made out, showing the exact boundaries of each city lot. The making of such a map will unearth the false representations of facts as to the size of the lots and the concealment of entire lots from assessment and taxation. The rightful taxes which have been lost to the city when there have been no maps available for use, will more than pay the cost of making them.

In the second place, these maps serve the purpose of reducing the trouble and cost of describing the property in sufficient detail to identify it. In many cases the assessments were declared illegal by the courts on account of the insufficient description on the assessment roll. In the opinion of the court, a man is entitled to know, when he inspects the assessment roll, what property is assessed, and, when the property is sold for taxes, the purchaser is entitled to know what property is being sold. This is the important thing in the assessment of real estate to-day. The assessors must insert in the roll such a description of the property as is sufficient to identify it. The failure to do so makes the assessment illegal. All these difficulties and risks are gone the moment that an accurate block and lot map is prepared. The assessor simply refers to the plot and the lot or other description of the property assessed and gets rid of all the questions of description of property. Further the requirement that property shall be described in sufficient detail imposes on the city large expenditure, since sometimes such a description takes a page and a half of an ordinary assessment roll. The adoption of a tax map does away with this expenditure. If the assessor can draw a short description, having it bounded north by Brown's, east by Jones', south by Main Street, and west by some other street, it is certainly a much shorter way than to write out a long description of every parcel in the tax district.

F. LAND VALUE MAPS

In addition to the block and lot maps, there are now in use about one hundred and forty land value maps for the entire City of New York. Under an agreement with the Department of Taxes and Assessments, they are published by the Record and Guide. They are so drawn with the streets as to allow the recording of per front foot value of a normal lot one hundred feet deep which is not subject to corner influences. In the case of large tracts of land in the suburban districts, the value per acre is marked in dollars. Where the parcel in the city is irregular in shape or subject to corner influences, the actual value is derived from the value per front foot, one hundred feet deep, of an inside lot, after due allowance is given to shape and position. "The frontage value recorded is the value per front foot of a vacant inside lot, one hundred feet deep, lying normally with reference to the grade of the street and being of normal or common size and shape." When a change in frontage value is found in any given block, the fact is indicated by recording the figures at two or more places along the block.¹

For 1913 the land value maps were first made public at the same time that the assessment rolls were opened to public inspection. That is to say, they were published on the day when the assessment rolls were opened for inspection, when the taxpayers could come into the assessing department to complain of the over-assessment placed upon their property. These maps have been a help to the department, because they tend to reduce the groundless complaints. In the City of New York there is a class of men who make it a profession to solicit reductions in assessments in the

¹ See a pamphlet, *Factors of Value of New Buildings and Explanation of Land Value Maps*, published by the Department of Taxes and Assessments of the City of New York, 1912, pp. 13-14.

interests of their clients. They have become very expert. Before they request reductions they study the land value maps throughout all the sections where high values prevail with a view to discovering discriminations. If they find that any one of their clients has been discriminated against or some other property owners in the neighborhood, whom they do not represent, have been better treated, they have ground for demanding a reduction. Now the publication of these land value maps has been very helpful to the assessing department, as it has made very rare the cases in which criticism of the assessments made by the department is justified. Further, it has been helpful to the assessors, because they feel that their work is going to be scrutinized by real-estate experts. This feeling is sufficient to make them careful about their work.¹

Thus, these maps are useful not only because the values of adjoining parcels of property on one street, when shown on them, will bear a reasonable relation to each other, but also because they assist the department to consider the application for reassessment, making reductions when necessary and satisfying complaints when assessments are inequitable. In a word, they are availed of in bringing about a more uniform assessment of land values.

G. SEPARATE ASSESSMENTS OF LAND AND BUILDINGS

Prior to 1903 in the City of New York, only a lump sum, either for both land and building, or for a vacant lot, was shown on the assessment rolls. The reports which were made at that time by the tax department showed the total of the aggregate assessed valuation of each section. The assessors were then in the habit of regarding every taxpayer who asked a question as too dangerous an enemy to

¹ *City Club Bulletin*, vol. vi, no. 14, March 4, 1913, issued by the City Club of Philadelphia, p. 336.

be told any more than was necessary in each case. This was the cause of a great deal of criticism against the assessing department, even though much of it was unjust.

The assessing department has learned a valuable lesson from its long experience, and has come to believe that the system that would protect it from unfair criticism and at the same time give it the greatest help is one which would give every one interested the best possible opportunity for criticising every detail. This necessitated the exhibition of its work in as great detail as possible, and in order to attain this end, the charter of the city was so amended in 1903 as to require the assessment of land separately from the buildings and improvements. This amendment was later adopted for all cities in the State of New York.

The first reason for assessing the value of the land and buildings thereon separately is to make correct valuations. The old practice of assessing the building and lot together made correct valuations impossible. A first-class lot on a good business street containing a private residence, with an old or obsolete building of little value, might be assessed at a smaller value than an adjacent lot of the same size, with, however, a fine building thereon. This shows that the old building has such a bad effect upon the mental operations of the assessors that the value of the lot is underestimated.¹

The second reason for assessing the building and the lot separately is to let every man know what his house, store, or building of any kind, is worth and what his lot and land, as distinguished from the improvements thereon, are worth.

It is obvious that if the value of the land should be separately ascertained, without any regard for the buildings

¹ See address on *The Assessment of Real Estate*, by Lawson Purdy, President of the Tax Department, delivered at the dinner of the Board of Real Estate Brokers, New York, March 7, 1903.

and improvements, the deputy tax commissioners will find it very difficult to discriminate between the various assessments of land values. They will be required to take greater care; the mere mechanical copying of figures by clerks from the old assessment rolls will be impossible; and it will be an easy matter for taxpayers to make comparisons of their own assessments with those of their neighbors. It will also be an easy matter to produce better evidence in the case of litigation to support the assessment if the valuation is correct, or to substantiate the claim of the taxpayer if the valuation is incorrect.¹

H. METHODS OF ARRIVING AT LAND VALUES

In addition to the two kinds of maps used by the deputies or assessors in determining the value of property, they are also assisted in their work by the department of taxes and assessments which furnishes them with all information about sales where the consideration is stated in the deeds, including the auction sales. These sales are placed on record in the form of cards which are used for reference by the deputies. In the Boroughs of Manhattan and the Bronx, the deputies carry with them a copy of *The Record and Guide*, containing all sales, mortgages and recorded leases. In the other boroughs, the department examiners abstract from the records of the register or the county clerk the data concerning conveyances, mortgages and recorded leases. These deputies are furnished with these records in the most convenient form. In order to throw as much light as possible on the true value of the property, the deputies are expected to seek other information from the real-estate brokers and others, in respect to sales, leases and rentals. In general, they have met with much success in their search for data, which they record in their field

¹ Purdy, *op. cit.*

books. The data consist of the actual prices paid for land which are not supposed to be known to any one except the two parties to the transaction. Although the asking prices generally cannot be taken as a measure of true value, they are evidences of value none the less and are therefore recorded on the deputies' field books. From this assemblage of evidences of value, they determine the value per front foot in each district. The exhibition of values on a land value map is designed to adjust the discrepancies and to correct the errors which might otherwise be made in the valuation of particular streets. It is because, upon the exhibition of the values of adjoining parcels on a map, they will be found to bear a reasonable relation to each other.¹ Dishonest discrimination and unintentional errors will be disclosed.

These records of sales, mortgages, leases, conveyances, rentals, etc., are made use of in the following way. In arriving at the value of the land without considering the buildings thereon, the deputies may make use of the value of one or more unimproved parcels of land in the immediate neighborhood, for their value can be readily ascertained by methods well understood by most assessors. As the values of adjoining parcels of land bear a close relation to each other, such data are a valuable aid to the deputies in ascertaining the value of the improved parcels of land. In case they fail to find vacant lots in the neighborhood, they can resort to the record of sales of lots situated nearby and thereafter improved at a cost more or less accurately ascertainable. Again, in every built-up neighborhood there can be found a fairly large number of buildings constructed at a cost more or less accurately ascertainable. Due allowance is given for depreciation from wear and tear and obso-

¹ See *Factors of New Building, etc., op. cit.*, pp. 15-16.

lescence if any. By subtracting the value of buildings so ascertained from the total assessed valuations on the basis of recent sales, mortgages, rentals, leases, etc., the land values can be determined with a great degree of accuracy. These methods are not the only methods of determining the land values, but they are fairly illustrative.¹

I. HIDING THE TRUE CONSIDERATION IN DEEDS

Unfortunately the fact that the true consideration in deeds is hidden has caused the Department of Taxes to lose the best evidence of land value and consequently to waste much valuable time in a hunt for what ought to be a matter of record. There is a consensus of opinion among the assessors that the true value of property is concealed by the recital of "one dollar and other good consideration" in nearly all deeds. Most of the assessors report that not more than one or two per cent of the recorded deeds show the true value of the property. Some raise the percentage to ten. It is therefore evident that the consideration given for the property in deeds cannot be taken as an evidence of true value; and should be withheld from the assessors.

It is rather unfortunate that the true price of real property for the purpose of taxation is the most inaccessible price to obtain, although it is the most important price to know, from the standpoint of the taxing officials. On the stock exchange, quotations are daily given for stocks and bonds; on the produce exchange, all kinds of produce are daily quoted; and on the metal exchange, we learn the prices of metals. In fact, actual prices of every conceivable kind of goods can be secured upon inquiry at any retail store. The only price that is to-day so clouded that it is practically invisible and unascertainable is the price paid

¹ See a pamphlet, *Real Estate and its Taxation in Philadelphia*, published by the Mayor of the City of Philadelphia, 1913, pp. 19-20.

for real estate.¹ If it could be stated in the deeds, it would prove a great benefit to the deputies as well as to the taxpayers, because when the deputies have learned the true value of property, their attention would certainly be called to those figures which stand out either too high or too low and would therefore be discredited as evidences of value. Further, if the true consideration appeared in clear, unmistakable terms in the deeds, all the loud outcry against unequal assessment would gradually diminish, for it would then be easy to assess property at its full value. Heretofore, a movement to place the most effective tools at the disposal of the assessors has been resisted by the real-estate speculators, who are afraid lest it might be difficult to sell the real property at fancy prices, *i. e.*, at prices greater than its original cost. It would be difficult, they think, to sell the property to the buyers when they learn that the cost of the property is much lower than the price they are asked to pay for it. Hence the contention of the real estate interests that to require by law a statement of the true consideration in deeds will prove injurious to the normal and legitimate trading in real estate. It has been demonstrated by experience, however, that the disclosure of the true consideration in the deeds will conduce to the increase and prosperity of real estate business. Men engaged in legitimate business endorse the measure, because they have been brought to the belief that the giving of the true consideration in deeds will tend to give confidence to people who hesitate to buy real property because of their mistrust. If every deed contained a true statement of facts, and if the department of taxes and assessment used it as a source of reliable information concerning the value of the property, the result

¹ *Report of the Commissioners of Taxes and Assessments of the City of New York, 1913, p. 8.*

would unquestionably be the conversion of many men into buyers and owners of real estate. The buyers will naturally turn to the assessment roll, as embodying and furnishing an exact criterion of value.

There is a possible objection to the measure in that the affidavits of value may be false. This is a reasonable objection, but as President Purdy of the New York Tax Department says, at least 70 per cent of the affidavits will be truthful. The remaining 30 per cent might be discarded. It is true that a large proportion of the truthful affidavits in combination with 30 per cent of the untruthful ones will be very misleading to the assessors or deputies, but at any rate, they will not be as misleading as they are now.

Another objection has been raised that men sometimes purchase property at a higher price than it is really worth, in order that they may round out the parcel for a business block or some other purpose. This must be accepted as containing some truth, but we must remember that no assessor will fail to observe the sudden jump in a real estate value when all other values remain normal. Therefore a sudden jump of value in a particular transfer will not influence them unduly.

The reader must not think that the selling price is always relied upon by deputies as the true indication of the value of any piece of land. A single sale is only a register of the opinions of two parties to the sale, the buyer and the seller. More than this, it frequently happens that necessity may compel the sale of property for much less than the property was really worth. Hence selling prices cannot be relied upon as a just figure at which to assess a particular property, but can be counted upon as one of the various indications to be considered in the determination of values.¹

¹ *Proceedings of the International Tax Association, 1910, pp. 383-386.*

J. THE VALUATION OF BUILDINGS

When a building is suitable for the site and does not suffer depreciation from wear and tear, its value is determined by finding the cost of reproduction. It can never be more. If it is unsuitable to the site or depreciated by age, the amount of depreciation can be ascertained by taking account of the rental and by using the tables prepared by architects, engineers and accountants, giving the average rate of depreciation of various classes of buildings.¹

In every large city there may be found thousands of buildings which do not add any value to the lot on which they stand. That is to say, they are either unsuitable for the site or are so depreciated that it does not pay to keep them in repair. In the City of New York, however, a small value is attached to them, on the theory that when the lot is purchased for improvement, the preparation of plans for putting up a new and suitable building will require some months, during which time the old buildings yield a revenue. Whatever the revenue may be, about one year's rental is taken as a minimum, which indicates that there is a building there. This is in conformity with a rule which has found some favor in New York City: "That a plot of land and the building on it that is used as a revenue-producing property is worth the net rental capitalized at a suitable rate per cent, and that this is the best test of the value of the whole; and that the whole is never worth more than the net rental capitalized at a suitable rate per cent until the land alone exceeds in value this capitalized sum."² Mr. Lawson Purdy, President of the Tax Department, gave as a concrete illustration of this rule an apartment house

¹ *Report of Commissioners of Taxes and Assessments of the City of New York, 1913, p. 122.*

² See an article by Lawson Purdy in *City Club Bulletin*, issued by the City Club of Philadelphia, vol. vi, no. 14, March 4, 1913, p. 334.

in New York City built about thirty years ago. The gross rent obtained at the beginning was about forty thousand dollars (\$40,000). The entire property—land and building together—was valued at about four hundred thousand dollars. To-day, the gross rent is only \$39,000. Within the past thirty years, many changes have taken place. Business has been coming in around that old apartment house, with the result that the value of the land has jumped up from \$150,000 thirty years ago to \$320,000 at present, although the value of the entire property stands to-day at the same figure. This indicates that the land has kept on climbing until in a few years it may come to be equal in value to the original worth of the whole property, and that the building has been depreciating. To-day the market value of the building is no more than \$80,000. The whole property to-day is worth the net rental capitalized at a suitable rate per cent, in the same way as thirty years ago. This sufficiently illustrates the steady increase in the value of land and the corresponding decrease in the value of improvements. Corroboration of this statement is found in one of the addresses of Professor MacCracken who says¹ that a study of the assessment roll of the various blocks in the city indicates that, especially in the case of old buildings, the valuation of the improvements falls much further short of the cost value or replacement value than the value of land falls short of the market price. This is illustrated by taking up at random several cases of assessments of land and buildings from the assessment roll. Thus in one case, "a row of millionaires' residences on a fashionable street are valued at \$12,000 to \$15,000 each, although they stand on land valued at \$90,000 to \$105,000

¹ See his address on *Real Estate Taxation in New York City*, at the First National Conference on State and Local Taxation in 1907.

and although the houses are recognized as suitable improvements for the site, though not of recent construction. On another fashionable street, the improvement valuations run from \$25,000 to \$35,000, whereas the land is valued at \$120,000 to \$150,000." Cases where the improvements are valued at \$80,000 erected on land valued at \$65,000, are very few in number. In these cases, the houses are generally built within the last two or three years on parcels lying outside of the fashionable sections. In general, it is safe to assert that the assessed improvement value bears little relation to the cost of the original improvement or the cost of replacements, and that the value due to the desirable improvements in fashionable localities is absorbed by the land value, the improvement value tending to decrease in proportion as the land values tend to increase. These conditions are, however, desirable to the majority of the population in New York City, for the reason that modern improvements and equipment would not have a chance to find favor with the city population except under very favorable tax conditions.

Two other interesting features of improvement assessment in New York City should be noted before we pass over to another topic. (1) The new improvements are assessed at a higher ratio of their value than the old improvements, no matter whether the value is determined by cost or by earning power. This practice is undoubtedly due to the prevalent belief in New York City that the edifices should be regarded as temporary improvements, in face of the fact that in other cities they would be regarded as good for a hundred years. Hence the old improvements were valued at one-fourth or one-third of their cost and the new improvements at 80 or 90 per cent. (2) Some private residences in New York City were assessed for less than the cost of their interior decorations. This is because of the

tremendous ease of ascertaining the cost of the unfinished buildings as evidenced by the estimates filed with the building department and the tremendous difficulty of arriving at the cost of interior fittings and decorations. The result is that tenement houses were loaded with a relatively higher burden than private residences, the former being marked off from the latter by the absolute lack of interior finish and ornamentations.

K. BUILDINGS UNDER CONSTRUCTION NOT TAXED

In 1913 an amendment was added to the New York City charter providing that "a building in course of construction, commenced since the preceding first day of October and not ready for occupancy, shall not be assessed."¹ Heretofore, unfinished buildings were assessed on the assessment day, which is fixed by law at October first, at an estimated value. As the buildings were in an incomplete stage, it was a very difficult matter for the assessors to make a fairly correct estimate. It became necessary, therefore, to make an arbitrary valuation. The amendment not only does away with the difficulty of making a proper valuation, but also encourages the erection of new buildings especially where they are to supplant old buildings producing a revenue. In New York City where values are so high as to yield a good rental, owners of old buildings will naturally hesitate to replace old buildings with new ones because of the loss of rental, and the heavy burden of taxation during reconstruction. The change in the law should lessen this hesitation. Hereafter, unfinished buildings will be exempt from taxation for one year, which is in most cases the period of non-revenue production. The land, however, is taxed as usual.²

¹ New Section 839-a, by Ch. 324.

² See the summary of *Tax Legislation and State Finances*, issued by New York Tax Reform Association, No. 543, June 10, 1913.

L. THE TWO-COLUMN STATEMENT *versus* THE THREE-COLUMN STATEMENT

Under the laws of Massachusetts, New Jersey, and a number of other states, the value of the land is required to be stated in one column, that of the buildings and improvements in another and the total value in a third. In New York City, only two columns are used,¹ one for the value of land and the other for the total value of land and buildings. The value of buildings is ascertained by subtracting from the total value the value of the land. The New York method is said to be preferable to the other method because there is a positive objection to the latter under which the value of the buildings is required to be stated in a separate column. The objectionable feature is that the assessors are "confronted with the necessity of actually setting down the value of improvements which are valueless or by making a direct statement that they are valueless."

In arriving at the values of improved property, the deputies should have their attention concentrated first upon the principal element of value—the land, and then upon the total value of the entire property, including land and improvements, not upon the building itself. If a separate column is provided for the value of the building, the assessor's mind is naturally concentrated upon the one element, and the psychological consequence will be a tendency on the part of the assessor to place a value on a building which is valueless, or deal with a depreciated building as if there were no depreciation. This objection can be obviated by adopting the two-column method, which makes the assessor answer two questions—What is the land worth? and what is the land plus the building worth?²

¹ See the address on the *Assessment of Real Estate* by Lawson Purdy.

² See a pamphlet, *Real Estate and Its Taxation in Philadelphia*, published by the Mayor of the City of Philadelphia, 1913, p. 19.

Buildings and improvements are valuable only when they are suitable to the location and fit for the best use of the land on which they stand. A large sum of money may be expended on them without enhancing the selling price of the lot or parcel. The correct method of determining the market value of the building and improvements is as provided by the two-column system to determine the market value of the lot or parcel with the buildings and improvements standing on it and then to determine the market value of the land alone without giving any consideration to the buildings and improvements. The difference between the two represents the value of the buildings and improvements. It would work a great injustice if the value of the buildings and improvements were determined separately from that of the land. The total valuation might be so increased as to generally exceed the real value of the property as a whole, as a result of giving too much valuation to the buildings and improvements. If the total value of the property as a whole is not increased, the value of the land might be unduly decreased, because the buildings might be over-valued. The over-valuation of the building and improvements is likely to occur if they are valued separately, since the assessors' attention might be attracted to their cost, not to their present market value. It is an established fact that the cost of buildings bears no relation whatever to their present selling value. They are subject to the double depreciation—from wear and tear on the one hand and from obsolescence on the other.

M. ASSESSMENT AT FULL VALUE

In order to make the assessment better from year to year, it is important to see that all lots in the city should be assessed at some ideal standard. That standard is "full value", as found in law, or "market value" as interpreted

by the courts. This is the wisest standard that has ever been found in the United States. If the assessors adopt some other standard in its place, they will not be able to define what their standard is. Would it be possible then for you to tell whether they are doing their work correctly or incorrectly, if you have not the slightest idea of what they have adopted as a standard? Remember that inaccurate assessment is, in some respects, worse than a harmful tax, because a harmful tax that is impartially enforced falls with equal weight upon the taxpayers affected. On the other hand, an inaccurate assessment falls more heavily on a few than on others. Again, since a bad tax affects all concerned, it stands to reason that it will be sooner or later abrogated, because all taxpayers will insist on its abrogation. But in the case of an inaccurate assessment, and consequently an unjust tax, the few victims affected can make only a feeble protest against it and therefore can do very little to remedy the evil, even if they realize it.

The method of assessing real estate at full value was adopted in New York City in 1903. The first reason for full valuation was to equalize taxation between Brooklyn and the outlying boroughs on the one hand and Manhattan on the other.¹ Before 1903, the valuation of New York real estate (old city of New York) was claimed to be 50 per cent of its real value, and that of Brooklyn real estate, 70 per cent of its real value.²

The second reason for assessing property at full value is the desirability of increasing the borrowing capacity of the city which is forbidden by law to transcend 10 per cent

¹ *Proceedings of National Tax Association Conference on State and Local Taxation, 1907*, p. 386.

² See a pamphlet, *About Greater New York—The Financial Condition of New York and Brooklyn Compared*, issued by Taxpayers' Anti-Equalization League of New York, February 5, 1896.

of the total assessed valuation of real estate. But the City of New York has increased its debt so rapidly that in spite of the attempt to value realties at 100 per cent the debt margin has always been narrow.

The third reason is that to value property at 100 per cent is more logical than at a percentage. As stated above, the practice among the deputies in New York City was to assess real estate at a percentage of its true value. Let us suppose that a parcel is assessed at 60 per cent. Does not that percentage presuppose the finding of a full value, *i. e.*, 100 per cent? Otherwise, how could it be possible to ascertain the 60 per cent? As 60 per cent means 60 per cent of full value or 100 per cent, it is obvious that the full value must be first determined, before the 60 per cent can be determined. Why not then enter the one hundred per cent upon the assessment roll and reduce the rate correspondingly?

The fourth reason for full valuation is to do justice to personal property. Before 1903, personal property was assessed at its full value whereas real estate only at a percentage of its full value. In New York and Richmond Counties, real estate was assessed at 67 per cent, in Kings at 68 per cent, and in Queens at 80 per cent of its true value.

The fifth reason for full valuation is to treat all real estate according to the same rule of justice and equity. Suppose A's real property is assessed at 60 per cent and B's at 40 per cent, while the average property is assessed at 50 per cent. A will have no redress in such a case, for if he states that his property is assessed at 60 per cent he is still under-assessed in the eye of the law, which provides for a full valuation. Instead of securing a reduction in valuation, he may be required to pay a tax on the full value. He will not, therefore, bring the matter to the attention of the department and prove the injustice done to him. But suppose that all real property in the neighborhood is assessed

at full value and A alone is over-assessed, say at 120 per cent. In such a case, it will be very easy for him to prove the injustice done to him and to have the assessment reduced to the common standard. At the same time, he can ask the department to have the 80 per cent assessment of his neighbor's property brought up to 100 per cent.

Since 1903, New York City has witnessed the greatest advance towards equality that has ever been made. "Formerly, every man was at the mercy of the assessor, and especially the owners of property of small value. They were the ones who generally paid more than their share."¹ The owners of property which had contributed less than their equitable share to the city government for many years prior to 1903, are now paying their fair share. The increase in the amount of taxes at first startled them, but they are satisfied that the law is now enforced and all owners are treated almost alike.

¹ See the address on *The Assessment of Real Estate*, by the Hon. Lawson Purdy, delivered at the dinner of the Board of Real Estate Brokers, New York, March 7, 1903.

CHAPTER V

OTHER TAXES

A. THE SPECIAL FRANCHISE TAX

I. *The Purpose of the Special Franchise Tax.*—In the years prior to the enactment of the Special Franchise Tax law it was brought to official notice at Albany that the farmers, the market gardeners, the mechanics and the tradesmen, having small holdings, were paying an improper and excessive portion of the general taxes. The Legislature wished to lessen the load of taxation on those who paid more than their proper share and to place a part of it on those whose property is found to be scattered all over the state worth at that time nearly \$200,000,000, which was not taxed at all and had never been taxed. This untaxed property consisted wholly of “special franchises,” or privileges granted to the public service corporations by the state or by municipal officers, for the purpose of furnishing to the public, transportation, water, light, and other necessities and conveniences of daily life. Its value, which had grown by leaps and bounds, rested upon the right to use in some manner the public highways of the state, but it was intangible and invisible. The Legislature, however, found certain tangible property subject to taxation situated in the public streets and used only in connection with and as a part of the intangible property not taxed.

The assessment of special franchises, which are defined by law as a form of real estate, carries with it a considerable amount of difficulty. It is an intangible and invisible

municipal property, but of great value. By value is not meant market value, because special franchises have no market value. There were no sales to guide and no experience from ownership, rental or use to rest on. This property is real estate only in name, but in fact it is only a right to use the streets. Aside from the earning capacity of a going concern, the value of the property depends upon so many conditions and so many facts and figures that its valuation cannot be determined by a hard and fast rule. For this reason the power of making the valuations of special franchises has been entrusted to the state board, owing to their experience, greater opportunities for observations, and lack of desire to benefit one locality at the expense of another.¹

II. *The Relation between Special Franchises and Tangible Property.*—It must be borne in mind that only that portion of the tangible property which was situated in the streets and public highways was affected, that part lying outside of the streets being excluded from consideration. The tangible property situated in the streets is so incidental to and dependent upon the special franchises that they would have no substantial value if they were severed from them. The rails and ties of a street railroad situated in the street would be worth nothing in the absence of a special franchise to use them. The relation between the tangible property and the intangible privilege or special franchise is so close as to be impossible of separation. The value of either resides in the union of both and can be ascertained only by treating them as a unit.²

¹ *Proceedings of the Fifth Annual Convention of the National Association of Comptrollers and Accounting Officers*, held at New York, 1910, pp. 106-107.

² *People ex rel. Metropolitan Street Railway v. Tax Commissioners*, 174, N. Y. 417.

III. *Special Franchise Tax used as an Offset.*—The tangible property assessed, together with the intangible right, is exempted from other forms of taxation, and all sums in the nature of a tax, paid by the owner of a special franchise to a municipality for its exclusive use, should be deducted from the tax imposed for local purposes.¹ This is the result of a long contention that section 48 of the general tax law which provided that all payments made by the public service corporations under the old charters conferred upon them by the city, as percentages on their receipts or as car-license fees, or in any other way outside of an absolute tax on the real estate, should be applied to offset this tax. The Supreme Court of New York decided in favor of the contention that the amount should be deducted. Later the Court of Appeals upheld it.²

The commission on new sources of revenue, appointed by the Mayor of New York City in 1911, argued that it could see no justification whatever for these deductions, and that section 48 "confuses the distinction between a corporate franchise—the right to exist and to do business as a corporation—and a public franchise—the privilege to construct and operate a public utility in the city streets." The distinction between the two may be more clearly brought out by calling attention to the fact that the corporate franchise is vested only in a corporation, while the public or special franchise may be owned by an association, copartnership or individual, as well as by a corporation.

The amount of money paid by the public-service corporations for the privilege to use the streets and public

¹ *People ex rel. op cit.*

² *Proceedings of the Fifth Convention of the National Association of Comptrollers, op. cit.*

highways, is not a tax, but the purchase price for the franchise conferred.² The leading authorities on taxation agree that a tax is a compulsory contribution to the government without any regard for benefit conferred. A sum of money paid by a public-service corporation is not a compulsory contribution or a tax, but a rent which is a consideration paid by a tenant to an owner of property for the use of it. Since these payments are not a tax, their collection cannot result in double taxation. If there is no double taxation, there is no justification for making these compensations or rentals deductible from the special franchise tax.³ The tax levy on special franchises has been about \$8,250,000 a year. The amount of collections, however, falls short of this sum, owing to the loss of a considerable proportion of the tax through equalization and statutory deductions.³

Since 1906, the city, in granting new franchises, has sought protection from the evil effect of section 48 in the following clause which is inserted in all franchises:

"Any and all payments to be made by the terms of this contract to the city by the company shall not be considered in any manner in the nature of a tax, but such payments shall be made in addition to any and all taxes of whatever kind or description. . . ."⁴

IV. *The Net Earnings Rule.*—Although the assessment of "special franchises" has brought to the city considerable revenue, it has been found very difficult to make a correct assessment. The New York Court of Appeals has taken the net earnings as a basis for assessment,

¹ *Report of the Commission on New Sources of City Revenue*, submitted to the Mayor, Jan. 11, 1913, p. 31.

² *Ibid.*, p. 36.

³ *Municipal Year Book*, 1913, p. 46.

⁴ *Report of the Commission on New Sources of City Revenue*, p. 33.

though no rule can be laid down by the court in all cases.¹ The principle is that the public-utility corporations are entitled to receive six per cent return on the capital they have invested in the business, and that the excess of the earnings over and above this six per cent return can be capitalized to ascertain the taxable value of the special franchises. This rule, sound as it is, is however complicated by many other considerations, some of which are pointed out below.²

In the first place, we must look into the character of the management in a given case, taking into consideration the varied vicissitudes of fortune, the hazards of the business and the skill of management. No one doubts the propriety of attributing to skill or ability a part of the earnings of a corporation.

In the second place, in arriving at the net earnings, the operating expenses must be deducted from the gross earnings; yet we all know that "operating expenses" can be so stretched as to wipe out the entire profit. But as the new system of accounting, as formulated by the New York Public Service Commissions, is gradually improved, a tax on net earnings will gain much potency.

In the third place the assessors are frequently brought face to face with a situation where a street railroad is considered as having a greater franchise value than a gas or electric company, by reason of its occupying more space in the streets and creating more nuisance; yet quite as frequently as otherwise a gas or an electric company earns more profit than a street railroad.

In the fourth place, how much of the net earnings of a

¹People *ex rel.* Jamaica Water Supply Co. v. State Board of Tax Commissioners, October, 1909.

²See the *Annual Report of the State Board of Tax Commissioners, 1909*, pp. 5-16.

company should be regarded as a reasonable return on the company's investment outside of the streets and public places? Since a special franchise is the right to use or occupy the streets and highways for business purposes, whatever investment is not in the streets and highways is not subject to the special franchise tax. The question is: how much of the net earnings should be allowed to be deducted?

The above discussion leads us to the conclusion that no uniform rule, practical in its application, can be adopted in the determination of franchise values. Every case must be judged on its own merits and by its own circumstances.¹

B. THE PERSONAL PROPERTY TAX

I. *The Personal Property Tax a Failure.*—Under the system of general property taxation a large proportion of personal property could not be reached by the ordinary methods of local assessments. The reports of every state investigating commission for the past thirty years can be quoted in support of this statement. In fact, this failure has been recognized as a fact by the states which have adopted a system of special taxes on certain classes of personal property. The imposition of special taxes by the state exempts them from local taxation. In the states which still keep the old system in use, all forms of personal property are theoretically liable to local taxation, but the tax falls most heavily on visible and tangible property, such as household furniture, machinery and merchandise.

Experience and theory concur in the conclusion that there has not yet been found an efficient method of assessing personal property at full valuation and taxing it at the general tax rate. Time and time again the law has

been strictly enforced in order to reach this end, with the result that the intangibles escape taxation by hiding.

II. *The Viciousness of the Personal Property Tax.*— Under the New York law personal property is divided into two classes: (1) the tangibles, such as horses, cattle, live stock, carriages and wagons, merchandise and stock in trade, machinery and tools, furniture, books, pictures, jewelry, clothing and personal effects; and (2) the intangibles, such as corporate bonds, mortgages, both on real and personal property, promissory notes, book credits, and deposits in banks, except savings banks.¹ As already stated, the intangibles generally escape by hiding. It is easy to reach the tangibles, but the effect of taxation on that class is vicious. Assessment is, in a high measure, arbitrary. Merchants and manufacturers whose tangible personal property can not be concealed bear the burden. Production and enterprise are discouraged and the prosperity of the city is impeded. Pennsylvania found her mistake and corrected it by exempting all personal property except live stock from local taxation, with the result that the cities were greatly benefited.²

Those who pay the personal tax are the ignorant, the helpless and the conscientious. The conscientious include, among others, trustees, executors, widows and orphans. The property held by these classes of people is in most cases invested in high-grade rail-

¹ See address by Mr. Woodbury, State Tax Commissioner, in *Proceedings of State and Local Taxation, International Tax Conference*, vol. —.

² See a pamphlet, *Taxation of Personal Property in the State of New York*, published by the Department of Taxes and Assessments, 1912, pp. 8 and 9.

³ *Proceedings of the Merchants' Association of New York*, April, 1910, pp. 17-18.

road bonds and real-estate mortgages producing an annual income of four per cent. From one-half to two-thirds of this income, or two per cent to three per cent of the capital goes to the city.¹

III. *The Tax Uncollectible.*—The history of personal taxation in New York City during the last fourteen years shows that the tax has not been and cannot be collected. In consequence of this, the city carried in 1910 as an asset over \$30,000,000 of unpaid personal tax assessments, which proved absolutely uncollectible. This amount increased at the rate of \$3,000,000 or more a year, which probably never will be collected. The tax-levy budgets before 1906 failed adequately to provide for this deficiency and the revenue from the personal tax fell several millions short of the estimate. The result was that corporate stock was issued to cover the deficiency, amounting to from \$30,000,000 to \$40,000,000, and the proceeds were expended for current purposes.*

IV. *The Substitution of Special Taxes for the Personal Tax.*—In place of the general personal tax, there have gradually come into use in New York State a number of special state taxes, and the tendency to abolish the general tax and to institute classes of special taxes in its stead is on the increase. This policy has no direct relation with the system of local taxation except that the share of direct state taxes on property assessed locally has been diminished. Although this sometimes takes away from the localities a source of revenue, its loss is more than compensated by the relief from state taxes on

¹ *Report on Taxation*, by Special Committee Association of the Bar of the City of New York, March 10, 1913.

² *Proceedings of the New York Merchants' Association*, April, 1910, p. 17. See also the Report of the Advisory Commission, 1907, on this point.

real estate. It should also be remembered that the revenue obtained in this manner by the state is largely spent for projects that, if completely carried out, add to the value of taxable real estate, such as highways improved by state aid. Cities generally do not receive direct benefit from such use of state revenue; but if the general conditions are improved as a result of the expenditure, the cities are certainly indirectly benefited through the stimulus to the industries and commerce, the chief source from which the city land values spring. Thus, in the State of New York, the revenue system has, during the past twenty years, changed from direct taxation to special taxation. A number of special taxes, now amounting to approximately forty million dollars a year, have been developed.¹ The residue that is still taxed as personal property can be reached by law. Stock and plant of merchants and manufacturers, jewelry and household furniture, and, unfortunately, the decedent's estates, which have to be declared in the surrogate's court, are about the only forms of personal property now taxable in the State of New York.

In the preceding chapter on real estate taxation, I have pointed out the wisdom of the policy, adopted in New York State, of separating the state tax from the local tax. The state reserves for itself the special classes of personal taxes, leaving the real-estate tax to the cities and counties. But as a matter of fact the state does not apply all the revenues derived from special taxation to state purposes only. Where the personal property assessed is of a distinctly local character, or where the value of the property springs from strictly municipal conditions, it stands to reason that the taxes should go to the local

¹An address on *Municipal Taxation*, by A. C. Pleydell, delivered before the League of American Municipalities, Montreal, 1909, p. 3.

treasury, or at least be distributed equally between the state and various localities where the taxes are levied and paid. For these reasons New York State shares with the cities and counties the revenue derived from the following three classes of personal taxes, each of which will be discussed in detail:

(1) Taxes on banks and trust companies. The tax on banks is collected and received by the localities, and the tax on trust companies by the state.

(2) The mortgage-recording tax, the proceeds of which are distributed equally between the state and the localities.

(3) The liquor licenses, the proceeds of which are also distributed equally between the state and localities.

C. TAXES ON BANKS AND TRUST COMPANIES

I. The Bank Tax under the General Property Tax.—The method of taxing banks in New York before 1901 was similar to that in almost all other states. It was the assessment of the shares of national and state banks at their market value. They were then taxed at the local tax rate for local and state purposes. The evils of this method were many. Upon investigation it was found that the local assessors assessed the banks by as many different methods as there were boards of assessors. In one place the assessment of bank shares might be the assessment of one-third of the market value, and that of real estate of eighty per cent of its market value. In another place real estate might be assessed at less than fifty per cent of its market value and the bank shares at full value. This was the cause of the inequality complained of by the banks. It rendered fair competition between banks in different localities impossible, and discouraged the banking business to a considerable extent.

All this was the result of the operation of the laws designed to tax all the widely different classes of property in the same way and at the local rate.

II. *The Special Tax.*—The State of New York has been singularly successful in remedying the manifold evils by an amendment to the law in 1901. National banks and banks incorporated under the laws of New York are treated exactly alike. All banks and trust companies are required by the law to report their capital, surplus and undivided profit as shown by their books. The total net assets thus shown are subject to a tax of one per cent, without deductions from the value of shares because of personal indebtedness, as in the case of the assessment of other personal property. No deduction is allowed for any reason whatever.¹ For instance, the investment of capital stock, surplus, or undivided profit in United States bonds, etc., does not exempt the shares from taxation. The tax on the trust companies is collected and received by the state, while the tax on the banks is collected locally as a local revenue. The latter is on the value of shares, such value being ascertained by adding together the amount of capital stock, surplus and undivided profits, and dividing the result by the number of outstanding shares.² The reason why the bank tax is levied on the shares of its stock rather than on its capital stock is because the legal decisions of the United States Supreme Court forbid the States from taxing a great portion of the capital stock invested in the United States³ bonds. The tax on the shares is designed to escape the results of these decisions.³

¹ *Report of the Committee on State and Municipal Taxation*, Chamber of Commerce of the State of New York, 1903, p. 17. ² *Ibid.*

³ See an article on "A Rational Scheme of State and Municipal Taxation," by Edward Cassin, in *Taxpayer's Magazine*, vol. vii, no. 3, Aug., 1908, p. 11.

The power of the state to tax banks is restricted by the federal statute that national banks cannot be taxed at a greater rate than other moneyed capital. The statute has a similar effect on the other moneyed capital, because it would not seem just and fair to tax the other moneyed capital at a greater rate than the national banks. "Moneyed capital" has been defined by the courts to include trust companies in the same class as banks, and to exclude almost every other corporation.²

The tax is assessed against the owners of the shares respectively, not as in the case of other personal property, in the district of their residence, but in the district where the bank is located. This is a departure from the method adopted by some other states where the revenue obtained from bank taxes is transmitted to the districts of the stockholders' residence. This method of distribution cannot be justified. Since the bank is doing its business in the city or town where it is situated, and protected, and where it gains its prosperity, it is a logical conclusion that the revenue should go to the treasury of the community in which the bank is situated.

The banks are required by law to pay this tax and to deduct from the dividends due to shareholders the amount of taxes paid on their respective shares, but retain a lien on all property of shareholders in their hands for reimbursement of the amount paid by them with interest.³

III. *The Benefits of the Special Tax.*—As stated above, the tax is one per cent of capital, surplus and undivided

¹ See an address by Lawson Purdy, President of the Department of Taxes and Assessments, New York City, on "Outline of a Model System of State and Local Taxation," in *Proceedings of the National Conference of State and Local Taxation, 1907*, pp. 71-2.

² *Report of the Committee on State and Municipal Taxation, op. cit.*, p. 17.

profits, no deduction being allowed on account of the real estate tax. Therefore, if the real estate owned by the banks and trust companies is taxed at the local rate, it cannot escape double taxation, which works unfairly on them. The justification of this is, however, found in the low rate of taxation on the book value. This method has a further advantage in that it is easy to collect the tax and at the same time a restriction is placed upon the tendency on the part of the banks and trust companies to hold an unnecessary amount of real estate.¹ There is a still further benefit in that under this scheme the same amount of revenue can be produced as under the old form of assessment on market value and taxation at the local tax rate, even though the present tax rate is lower than the old local tax rate. But this benefit to the government is counterbalanced by the benefit to the banks in the form of security, equality and uniformity. Therefore, by the introduction of a special tax on banks, that falls equally on all competing capital, uninfluenced by the character of investments, automatic and free from any discretion on the part of the assessors, uniform throughout the state, and reasonable in amount, New York has removed all the evils which had existed under the old system.

Many people are inclined to look upon financial institutions as especially fit for taxation, but it should be borne in mind that burdensome taxation, especially when it is imposed unequally, is a tremendous obstacle in the way of extending banking facilities and is consequently a check to the growth and prosperity of the community.

IV. *Comparison Between the Old and New Tax.*—Prior to the enactment of the bank-tax law, banks were taxed

¹ *Outline of a Model System of State and Local Taxation, op. cit.*

under the personal tax law, and as the shares of stock could be easily concealed, the law could not reach them. This led to the enactment of the present law, imposing a tax of one per cent, not on the shares of stock, but on the capital, surplus and undivided profits of all state and national banks, which could not be hidden. In 1913 the city revenue derived from the bank tax was approximately \$3,400,000.

D. THE TAX ON MORTGAGES

I. *The Undesirability of the Old Mortgage Tax Laws.*—Prior to July, 1905, mortgages were taxable in the State of New York as a form of personal property under the general property tax.¹ The tax was subject to the reduction for debts. It was imposed on the net amount of the mortgage at the full local tax rate, ranging between 1½ per cent and 3 per cent. The amount of mortgages caught for the purpose of taxation was very small. Those persons who were caught were generally the least able to bear the burden, because they were generally women and children mentioned in wills as beneficiaries. The gross injustice of the tax was further aggravated by the rise in interest rates, due to the fact that the fear of taxation prevented many lenders from lending money on mortgage security except at a higher rate.² Thus the liability to taxation caused the interest rate to rise, notwithstanding the fact that only a very small percentage of the mortgages was actually reached.

In Massachusetts, mortgages were exempted from taxation in 1881. An examination of the mortgages in force in 1889, which were generally made after the law

¹ Laws of 1896, ch. 908.

² A pamphlet, *Mortgage Taxation and Interest Rates*, by New York Tax Reform Association, 1906, p. 1.

exempting mortgages was passed, showed that the interest rate in Boston was lower than that in the city of New York. If other influences were equal in both cities, the interest rate in New York City in 1889 should have been lower than in Boston, as more money comes to a larger city than to a smaller one. But it has been found to be a fact by the New York Tax Reform Association that the rate was higher in the New York counties than in Boston by $1\frac{1}{2}$ mills in New York, 7 mills in Erie county and over 6 mills in Monroe county. Such a thing could not happen were it not for the liability of mortgages in these counties to taxation.¹

On July 1st, 1905, a new law was enacted in the State of New York, by which all mortgages recorded after that date were annually taxed at the rate of one-half of one per cent irrespective of the place where the owner resides and without any deduction for his personal debts. The tax was payable at the recording office.* The record of the mortgages recorded during the last six months of 1904 under the old laws and during the last six months of 1905 under the annual mortgage tax law, gave indisputable evidence of the undesirable effect of mortgage taxation upon the rates of interest. We now know that under the old law the rate of interest in the State of New York increased by a mill and a half in some counties and as much as three or four mills in other counties, on account of the liability to taxation. We also know that under the annual mortgage tax law the rate of interest increased over what the rate would be were mortgages exempt from taxation.³

¹ A pamphlet, *op cit.*

² Laws of 1905, ch. 729.

³ *Mortgage Taxation and Interest Rates*, p. 8.

II. *The Taxation of Mortgages Unjust and Undesirable.*

—Not only are the owners of burdened real estate discriminated against, but the erection of new buildings is greatly checked by the imposition of this tax. Buildings are generally erected with borrowed money, and as the tax on mortgages is shifted to the mortgagor or borrower, it adds to the cost of buildings. The reduction of buildings leads first to the diminution of demand for building materials, and second to the lessening of opportunities for employment, and third to the increase of rentals. On these grounds the taxation of mortgages is most undesirable and should be abolished. As it was impossible to abolish it entirely, it has been replaced by a recording tax, which relieves it from the annoyance and risk arising from the annual tax. Moreover, a tax on property and a tax on a mortgage on that property is double taxation, because both taxes are paid by the owner who borrows. If his property is estimated at \$15,000, but is mortgaged to his lender for \$10,000, he has an equity of only \$5,000 in the property, yet he pays a direct tax on \$15,000 of property and an indirect tax on the \$10,000 of mortgage, because the latter is shifted to him through a loading in the interest charge. All this undesirable situation was relieved by the new mortgage recording tax of 1906, as we shall soon see. In several of the American states the law allows a deduction of the amount of the mortgages from the assessed value of the real estate, the tax being payable either by the owner of the real estate or of the mortgage. Such a law is deserving of praise, as it eliminates the evil of double taxation.

III. *The New Mortgage Recording Tax.*—A law was passed in 1906¹ abolishing the annual tax and replacing

¹ Laws of 1906, ch. 532.

it with a recording tax, which is levied once for all at the rate of one-half of one per cent. It is perhaps unjust to pick out mortgages from the many different forms of personal property and to make them subject to a special tax. For many reasons such a tax is also undesirable, but as the mortgages are publicly recorded, it is a simple and easy matter to levy a tax on them at the time they are recorded. As stated above, personal property taxation has been a failure in almost all states, owing to the fact that most of the classes of personal property are easy of concealment, and therefore escape taxation. Mortgages, however, cannot escape taxation because, to be officially recognized, they must be publicly recorded. For this reason the law pertaining to the mortgage tax as it is in vogue in New York today can be effectively enforced; the taxes received annually are certain in amount.

IV. The Desirable Features of the Mortgage-Recording Tax.—The mortgage recording tax has many desirable features, of which the following are the most important:

(1) The interest rates are lowered as a result of the law of 1906. Money is more freely lent on mortgages. In states where the annual mortgage tax still exists, many investors hesitate to lend on mortgages because of their aversion for the subterfuges necessary to avoiding the confiscation of income.

(2) Another desirable feature is the freedom of the debtor from the burden of taxation. It must be accepted as inevitable that the tax will fall on the borrower irrespective of who is required by law to pay it—the lender or the borrower—but the exaction of the present low rate of tax is by no means grievous. The average payment of the tax, even in New York City, would hardly go beyond twenty-five dollars in any case, and the average life

of a mortgage runs from four to seven years. A payment of the amount indicated hardly seems onerous, considering the amount of protection accorded to the taxpayers by the state. On the basis of a five-year duration, a half per cent recording tax means only one-tenth of one per cent on the amount of the mortgage in a year.

(3) The third desirable feature of the recording tax is that it is self-administering. The revenue comes in automatically, the administrative details are by no means cumbersome, and the cost to the state is insignificant.¹

(4) The fourth desirable feature is that the revenue-proceeds from this tax are highly satisfactory. One-half of the proceeds goes to the state and the other half goes to the general fund of the city, after the expenses of collection have been deducted. The city's share varied from \$184,000 in 1905, under the annual tax law, to \$1,699,525 in 1907 under the recording-tax law.² However, 1907 was a year of unusual activity in real estate business. To-day the tax yields about \$1,350,000 a year.³ Further, it is reasonable to believe that a large proportion of the mortgages represent the investment of large amounts of capital; and a large proportion of the proceeds of the tax is derived from mortgages of this character. In such cases, the tax would be paid as one of the expenses of financing the project and would be borne by a class of people capable of bearing it.

5. *The Alleged Defects of the Recording Tax.*—The present mortgage-tax law treats all mortgage securities in the same way, irrespective of the great difference in

¹ See an article on "Mortgage Recording Tax," by C. F. Robinson, in *Political Science Quarterly*, 1910, pp. 609-624.

² See an address on *The System of Revenue in New York City*, delivered by Mr. McIntyre, at the Bureau of Municipal Research, 1913.

³ *Municipal Year Book*, 1913, p. 48.

their duration of life. Thus, a mortgage security whose life is as short as one year, is taxed at the same rate and on the same basis as another whose life extends to fifty years. The average life of the ordinary individual mortgage is presumably five years, and since a new mortgage-recording tax will be imposed at the end of its five years' life, when the new, or more properly, the renewed, mortgage, springs into existence, it is clear that the tax will be imposed ten times for a period of fifty years. On the other hand, the corporate-trust mortgage, running for fifty years, would only be taxed once during that entire period. This manifest discrimination in favor of the corporate-trust mortgages and against the ordinary individual mortgages, should not be allowed to continue, and the right of exemption should not extend beyond five years. The institution of a new five-year tax will not only do away with the present manifest injustice, but will also materially increase the state and local revenue from this particular source of taxation. But we must consider the other side of the proposition. One-half of one per cent is not an onerous tax, even upon a three-months' mortgage. It would probably be possible to make a smaller exaction in the case of short-term mortgages, but the administrative difficulties would be serious. A periodical examination of the outstanding mortgages, for the purpose of listing those mortgages on which no further tax has been paid, would vastly increase the difficulties of the administrative mechanism.¹

Another defect of the mortgage-recording tax is evasion. It is estimated that the average amount secured by mortgages upon real property, upon which taxes have been paid for the period of three years from 1907 to 1910,

¹ See the *Mortgage Recording Tax*, *op. cit.*

is approximately \$740,000,000.¹ Considering the immensity of mortgage indebtedness secured by corporate-trust mortgages, and the duration of 30, 40, and even 50 years, "it is safe to assume as a low estimate that there is outstanding (in 1910) upwards of 4000 millions of indebtedness secured by mortgages upon real estate." Deducting from this sum the annual amount of 750 millions upon which an annual tax is levied and paid and 650 millions as representing the amount of mortgages which go to make up the capital stock, surplus and undivided profit of banks and trust companies and the surplus and undivided earnings of savings banks, which are taxed annually, there remains 2600 millions of mortgages which escape taxation."

E. THE EXCISE TAX

The excise tax, *i. e.*, the liquor tax, is imposed on saloons in the form of a fee, which is \$1,200 per annum for each saloon in Manhattan and Brooklyn. This is the maximum rate, the fee being smaller in other boroughs, and graduated on the basis of the character of the liquor establishment and the population of the borough.² Of the \$11,638,000 collected from this source in 1898 in the entire state about \$8,178,000 was collected in the city of New York. From that year until 1904 the proportion which the city received was two-thirds, or 66⅔ per cent. of the total amount collected within its own limits. In the latter year the tax was increased by one-half, so that an \$800 fee was raised to \$1,200 for each saloon. However, the share which the city was entitled to receive was no longer

¹ *Annual Report of the State Board of Tax Commissioners, New York, 1910, p. 8.*

² *Ibid.*

³ *Municipal Year Book of the City of New York, 1913, p. 48.*

two-thirds, but one-half, as at the present time. Therefore, although the saloonkeepers are paying 50 per cent more tax, the city receives little more now than before 1904.¹ At present about 10,500 liquor certificates are in force within the city, yielding a net municipal revenue of approximately \$5,775,000.² This revenue, like the revenue from the mortgage tax and bank tax, is credited to the general fund of the city, but it is subject to a reduction as a result of a special statute pledging a certain percentage of it to departmental pension funds, and also to certain societies that are carrying on quasi-public functions.³

¹ See an address by Mr. R. B. McIntyre, Secretary of the Commission of New Sources of Revenue, on *New York's System of Revenue*, delivered at the Bureau of Municipal Research, April 2, 1913.

² *Municipal Year Book*, 1913, p. 48.

³ See Mr. McIntyre's address, *supra*.

PART III
THE CITY DEBT

CHAPTER VI

ORIGIN, CLASSIFICATION, LIMIT AND COMPUTATION OF THE CITY DEBT

THE City of New York borrows money for two purposes which are so fundamentally different that they fall properly under two heads: (1) loans to meet current expenditures, and (2) loans for the acquisition and construction of improvements.

A. TEMPORARY LOANS

I. *Revenue Bonds*.—In New York, as in many other American cities, taxes are collected so late in the fiscal year that revenue bonds are issued to pay the cost of administration, in anticipation of future tax receipts. Loans of this character do not usually constitute a part of the debt that is subject to the constitutional limitations on municipal indebtedness. So long as the revenue bonds issued are not beyond the amount of current revenue collectible within a reasonable time, or so far as the excess of such bonds, if any exists, can be retired from the next year's tax levy, no harm is done, except that the taxpayers have to bear the additional burden of the interest charge on the revenue bonds. In case the excess is left unredeemed, it must be funded into a permanent interest-bearing debt, representing past operating expenses. The use of this method of financing constitutes a serious municipal problem, since the payment of the interest on such a debt is a pure waste and tends constantly to increase the burden upon the taxpayers of many municipalities.

It is sometimes argued that the late collection of taxes, which is the cause of the revenue-bond issue, is beneficial to delinquent taxpayers, because, by postponing the payment, of taxes and using the money for private purposes, they may avoid the trouble of borrowing money from banks at a high rate of interest, while the city, owing to its good credit, can get money at a low rate of interest. In other words, the city can borrow money for the taxpayers at a lower rate than they can themselves, and consequently, the late collection of taxes is to be commended as a sound policy for any municipal government. This view makes the benefit of delinquent taxpayers, not that of the city as a whole, the criterion of a sound fiscal policy. The interest payment on the revenue bonds, issued in anticipation of taxes levied and promptly redeemed, is no doubt of advantage to delinquent taxpayers who are under constant pressure for financial accommodation. It is, however, an unfair charge upon the community, especially as a large majority of taxpayers desire and are able to pay their taxes when the money is needed.

During the first administration of the present comptroller, a step in the right direction was taken through a change of the law relating to the collection of taxes. Taxes in New York City were formerly payable on the first Monday in October, with the consequent loss of an enormous amount of money paid out as interest charges on current loans, during the nine months from January first to October first. The amendment recently made to the existing tax laws advances the date of collection from October first to May first, and introduces the policy of the semi-annual collection, which works to the great satisfaction of the taxpayers and effects a large saving in interest on temporary loans. Many other cities have adopted the same reform, appreciating that it is always conducive to economy to levy and to collect

taxes as soon as possible after the beginning of the fiscal year.¹

II. *Special Revenue Bonds*.—In addition to the revenue bonds just considered, there is another form of temporary indebtedness, distinguished from the former only in respect to the source from which the money for its liquidation is drawn. This is called the special revenue bonds. So far as the money market is concerned, it amounts to the same thing as an ordinary revenue bond or bill. It represents payments, however, which are not chargeable to the current year's budget. These extra-budgetary expenditures may arise in several ways, in the nature of emergencies, as follows:

1. Judgments and claims.
2. Deficiencies in certain funds.
3. Operating expenses of the Public Service Commission, first district.
4. Operating expenses of many of the county offices, in addition to the amounts in the budget.
5. Emergency expenses of the Department of Health.
6. Emergency expenses of the District Attorney's office.
7. Snow removal for the Department of Street Cleaning in addition to amounts in the budget.
8. General appropriations supplemental to the current year's budget for the various departments, limited to an issue of \$2,000,000 per annum.

The above are some of the recurring uses of special revenue bonds. In addition these bonds may be issued for special purposes, as illustrated by the following examples:

1. Municipal celebration, July 4, 1912.

¹ *Proceedings, Seventh Annual Convention, National Association of Comptrollers and Accounting Officers, held at Buffalo, N. Y., 1912, pp. 15-16.*

2. Board of Elections, deficiency in appropriation, 1912.
3. Maintenance of Williamsburg Bridge, 1912.
4. Purchase of general supplies, 1912, Department of Education.
5. Payment of county charges and expenses.
6. Deficiency in appropriation for carting.
7. Claims police pension fund—deficiency in appropriation, 1912.
8. Purchase, operation and maintenance of automobile, President Borough of Queens.¹

In order to show how special revenue bonds may arise as the result of an emergency, let us suppose that there is an unusual snow-fall in a certain year. If the expense of clearing away the snow is greater than is provided for in the budget, the Board of Estimate and Apportionment, at the request of the Street Cleaning Department, may authorize an issue of special revenue bonds for this purpose. These bonds cannot be paid off from the tax receipts of the current year and an item is therefore inserted in the budget for the following year to provide for them. On May 4, 1913, the city had about \$8,000,000 of these special revenue bonds outstanding. Part of this sum represents extraordinary expenditures in 1913 which were provided for in the 1913 budget and were redeemed from the taxes of that year. The rest represents extraordinary expenditures in 1913, which have been provided for in this year's budget and will be paid out of this year's tax receipts.²

The issue of special revenue bonds to provide for emergency cases has led to the evil practice of overstating the redemption charges, owing to the fact that the former have

¹ See leaflet, *No Matter Who Is Elected—No. 12—Expense Facts Hidden in Debt Redemption Charges*, published by the New York Bureau of Municipal Research, Aug. 9, 1913.

² *New York Times*, May 4, 1913, viii, 14, 1.

been put into the same item as charges for permanent debt. In the three budgets voted by the Gaynor administration, over \$20,000,000 of special revenue bonds were put in as debt-service charges. In the three corresponding years of the preceding administration, 1907-1909, special revenue bonds constituted over \$25,000,000 of the total debt service. "In some years, more than half of the so-called charges for 'redemption and installments of city debt' was really for meeting current expenses of the preceding year." In 1909, it was \$1,172,000 more than half.¹

The result of lumping together the special revenue bonds redemption with the permanent debt redemption, is to prevent both the public and the officials from focussing their attention upon the size of the extra-budgetary expenditures made during the year. Although these expenditures are, in the nature of things, impossible to determine at the time the budget is voted, it has been suggested that the Comptroller and the Board of Estimate should at least state definitely when the budget it prepared, the amount spent for each purpose for the first three quarters of the current year and the amount estimated for the balance of that year, and should show separately in the budget the amount of short-term bond redemption and the purpose for which such bonds were issued.² This is an important suggestion, because in the past the taxpayers have been deceived by the low budgetary allowances. For instance, a few years ago, before the installation of the scientific budget, almost one-third of the expenditures for the Health Department was paid from special revenue bonds. Every health project was taken as an emergency measure and, for the time being, the budget-

¹ See a leaflet, entitled, *No Matter Who Is Elected—No. 12—Expense Facts Hidden in Debt Redemption Charges*, published by the New York Bureau of Municipal Research, Aug. 9, 1913.

² *Ibid.*

allowances for that department were kept below the normal amount. It would undoubtedly be a great step forward in the reform of city financing to refuse the authorization of special revenue bonds for purposes previously denied when the budget was voted. A contingent fund should be created to supply the unforeseen expenses omitted from the budget. This would put a stop to the evil practice of meeting emergencies by issuing short-term bonds, costly in interest charges.

B. LONG-TERM FINANCING: THE FUNDED DEBT

The funded debt of the city has grown up because of the unsound financial practice of borrowing on long time for the acquisition and construction of improvements, which has been due to the popular clamor for expensive improvements which shall entail no expense upon the present taxpayers. Most of the taxpayers wish to pay as little as possible of the tax burdens which should fall directly upon them and prefer the practice of having the municipality borrow and pay any amount of interest in order to impose the payments upon future generations. Anyone who advocates the payment for improvements partly out of the annual tax levies and partly out of the proceeds of short-term bonds with maturities reasonably commensurate with the life of the improvement is sure to be denounced as an enemy of the common welfare, whereas those officials, who defend the evil practice of charging the cost of construction to the long-term corporate stock, are hailed as friends of the community.¹

The extent to which the policy of charging the cost of construction to the long-term corporate stock has been car-

¹ See an article on "City Borrowing," by Mr. Gliffing, *Proceedings, Seventh Annual Convention, National Association of Comptrollers and Accounting Officers*, held at Buffalo, N. Y., 1912, p. 16.

ried, is shown by the fact that during the period from January 1, 1898, to June 30, 1911, long-term bonds of the City of New York were issued for the following purposes:

Water Supply	\$129,923,568
Streets and Roads	99,111,159
Schools	93,517,622
Docks and Ferries	82,676,225
Bridges	78,734,452
Rapid Transit Railroads	73,162,337
Public Buildings	59,008,909
City Parks	37,578,461
Libraries	11,493,400
Fire Department	6,049,389
Police Department	3,602,984
Department of Health	3,216,809
Department of Street Cleaning	3,170,541 ¹

Fortunately this eagerness for public improvements is held in check by the constitutional provisions, limiting the debt-incurring capacity of the city to 10 per cent of the assessed valuation of its real property. We shall presently see what an important part this constitutional limitation has played in the city's financing and what portion of the city's debt is subject to it.

It has been argued that the cost of improvements should be distributed over the number of years for which they are of use to the community. The improvement benefits the community as long as it is useful, and might be the cause of its rapid growth. In such a case, it is perhaps reasonable to apportion the cost over the years benefited. But as a general rule, such a policy should be condemned as wasteful and extravagant, because improvements as a whole constitute an annual recurring charge of substantially the same

¹ See an article by William A. Prendergast, Comptroller of the City of New York, in *National Municipal Review*, vol. vi, no. 2, April, 1913, p. 221. These figures pertain only to permanent improvements and have nothing to do with the current cost of operation.

amount, similar in principle to the operating expenses. Take, for instance, the cost of constructing a school house, say \$100,000. A growing city may build a new school each year or two, and is thus under the obligation of paying an annual charge of equal amount each year. The issue of corporate stock to pay the cost is no sound method of equally apportioning the burden over the number of years benefited. It merely puts off the time of payment and imposes the additional and unnecessary burden of paying interest charges, ranging from 50 to 200 per cent of the principal. To put it in another form, if a growing city is building every year or two a new school, at a cost of \$100,000, and pays for it by means of 50-year bonds, instead of out of current revenue, it will pay eventually \$300,000—\$100,000 for the school and \$200,000 for interest.

The enormous increase in the amount paid for interest is most startling in the case of macadamized or paved streets. The City of New York has actually been in the habit of selling 50-year bonds to pay for ten-year street paving, which lasts often for not more than five years! Thus, the interest payment continues, even after the streets have been worn out. Fortunately, the dawn of a brighter era of financing has come and legislation has been obtained to permit the city to issue ten-year bonds for street paving. This is certainly a notable step in the right direction of municipal financing. It will also enable the city to obtain more margin for further indebtedness to finance abnormally large and costly metropolitan improvements.

This change paves the way for a second but more advanced step in the reform of municipal financing. A 10-year street constructed at a cost of \$100,000, if paid for out of 50-year corporate stock, would cost the city at the end of fifty years about \$300,000—\$100,000 for the original cost and \$200,000 for interest. This would be reduced

to \$140,000 if 10-year bonds were issued in place of 50-year bonds. As street paving in New York City has become a recurring betterment work, it would be even more reasonable to pay for it out of the annual tax proceeds, because such an expenditure is in the nature of annual expense. The next enlightened step would therefore be the elimination of the interest charge altogether, so that the expense for paving each street would be original cost only.¹

The greatest disadvantage of financing municipal needs by the issue of corporate stock, lies in the constant enlargement of the percentage of the annual budget that goes to pay the debt service. Thus, in the year 1898, of every \$100 spent as current cost of administration in the City of New York, about \$15.09 was for interest and redemption of debt, including the interest on all the debt and the redemption merely of the long-term bonds. The redemption of the short-term certificates is not included, because it is not in the nature of debt service. This percentage rose from 15.09 in 1898, the first year of the consolidation, up to 25.94 per cent in 1909, and 26.65 per cent in 1910. It is therefore important to call public attention to this feature of municipal financing, by showing by significant lines of cleavage what are the causes of our expenditures and what ratios the expenditures bear to the total. Now there is something radically wrong in the fact that out of every \$100 for current administration, the debt-service alone absorbs \$26.65.² The ultimate effect of loading the city with such a high debt service will be the diminution of the bud-

¹ For a more detailed statement on this point, see article on "City Borrowing," by Mr. Gliffing, *Proceedings, Seventh Annual Convention, National Association of Comptrollers and Accounting Officers, 1912*, pp. 15-16.

² *Proceedings, Fifth Annual Convention, National Association of Comptrollers and Accounting Officers, 1910*, p. 115.

amount, similar in principle to the operating expenses. Take, for instance, the cost of constructing a school house, say \$100,000. A growing city may build a new school each year or two, and is thus under the obligation of paying an annual charge of equal amount each year. The issue of corporate stock to pay the cost is no sound method of equally apportioning the burden over the number of years benefited. It merely puts off the time of payment and imposes the additional and unnecessary burden of paying interest charges, ranging from 50 to 200 per cent of the principal. To put it in another form, if a growing city is building every year or two a new school, at a cost of \$100,000, and pays for it by means of 50-year bonds, instead of out of current revenue, it will pay eventually \$300,000—\$100,000 for the school and \$200,000 for interest.

The enormous increase in the amount paid for interest is most startling in the case of macadamized or paved streets. The City of New York has actually been in the habit of selling 50-year bonds to pay for ten-year street paving, which lasts often for not more than five years! Thus, the interest payment continues, even after the streets have been worn out. Fortunately, the dawn of a brighter era of financing has come and legislation has been obtained to permit the city to issue ten-year bonds for street paving. This is certainly a notable step in the right direction of municipal financing. It will also enable the city to obtain more margin for further indebtedness to finance abnormally large and costly metropolitan improvements.

This change paves the way for a second but more advanced step in the reform of municipal financing. A 10-year street constructed at a cost of \$100,000, if paid for out of 50-year corporate stock, would cost the city at the end of fifty years about \$300,000—\$100,000 for the original cost and \$200,000 for interest. This would be reduced

to \$140,000 if 10-year bonds were issued in place of 50-year bonds. As street paving in New York City has become a recurring betterment work, it would be even more reasonable to pay for it out of the annual tax proceeds, because such an expenditure is in the nature of annual expense. The next enlightened step would therefore be the elimination of the interest charge altogether, so that the expense for paving each street would be original cost only.¹

The greatest disadvantage of financing municipal needs by the issue of corporate stock, lies in the constant enlargement of the percentage of the annual budget that goes to pay the debt service. Thus, in the year 1898, of every \$100 spent as current cost of administration in the City of New York, about \$15.09 was for interest and redemption of debt, including the interest on all the debt and the redemption merely of the long-term bonds. The redemption of the short-term certificates is not included, because it is not in the nature of debt service. This percentage rose from 15.09 in 1898, the first year of the consolidation, up to 25.94 per cent in 1909, and 26.65 per cent in 1910. It is therefore important to call public attention to this feature of municipal financing, by showing by significant lines of cleavage what are the causes of our expenditures and what ratios the expenditures bear to the total. Now there is something radically wrong in the fact that out of every \$100 for current administration, the debt-service alone absorbs \$26.65.² The ultimate effect of loading the city with such a high debt service will be the diminution of the bud-

¹ For a more detailed statement on this point, see article on "City Borrowing," by Mr. Gliffing, *Proceedings, Seventh Annual Convention, National Association of Comptrollers and Accounting Officers, 1912*, pp. 15-16.

² *Proceedings, Fifth Annual Convention, National Association of Comptrollers and Accounting Officers, 1910*, p. 115.

getary appropriations to take care of the current operating needs, so that the city will be practically forced to continue the issue of bonds and to put off the day of payment until the time when the annual taxes amount to such a high figure as to be an intolerable burden. A great lesson can be learned from Washington, D. C., which has carried on its beautiful improvement work without recourse to the practice of issuing long-time bonds. There are some other cities in the Union which are in a similar situation. There are no protests against poor financing in those cities because their officials have been able to make the outlay for improvement an annual charge against the budget.¹

To make clearer the objection to long-term bonds, suppose that beginning with 1914, the city officials should appropriate \$20,000,000 for capital outlay and insert this as a new item in the budget. This would of course mean an increase of that amount in the tax revenues needed for that year. In the second year, however, there would be a diminution of about \$1,000,000, which would have been needed to pay the interest on \$20,000,000, had long-term bonds been issued. A \$20,000,000 annual appropriation for public improvements for a period of twenty years would cost the taxpayers \$400,000,000, but it must be remembered that the city's debt would at the end of the twentieth year be \$400,000,000 less than it would have been had the improvements been financed by the issue of corporate stock. Moreover, an interest and sinking-fund charge to the amount of \$226,000,000 would be avoided. On the basis of 4.50 per cent, the saving of interest to the city would increase from \$900,000 in the first year up to \$45,000,000 in the fiftieth year, provided that the fifty-year bond issue is split up into fifty annual installments of \$20,000,000 each.

¹ *Proceedings, Seventh Annual Convention, National Association of Comptrollers and Accounting Officers, 1912, p. 18.*

Against this proposal the argument is made that it is unjust to impose the burden of financing public improvements on the present generation, since the streets and other forms of improvement benefit the future generations to no less extent. It is this argument which has sometimes been advanced to justify the city's borrowing policy, in disregard of the fact that in the past, short-lived improvements have often been paid for out of the proceeds of long-term bonds. But whatever its theoretic justification, the borrowing policy of the past cannot be continued in the City of New York. The question must be dealt with in the light of the actual circumstances of this great city. In a small community, where the construction of water works makes an exceptional demand for funds, it might be advisable to apportion the burden over a number of years by issuing long-term bonds, instead of increasing the current tax-levy. This example cannot be followed by New York, for the reason that the demand for such funds is a continuous one. For the past ten years, the corporate stock in New York averaged \$61,530,000, and we cannot in the near future expect any appreciable diminution in the demand for public improvements. Added to this \$61,530,000 expended for improvements, is the amount of fixed charges aggregating nearly as much more—the estimated interest and sinking-fund charges for 1913 being approximately \$55,000,000.¹ These debt charges would be greatly reduced if future bond issues were cut down. The assumed budgetary addition of \$20,000,000 would therefore be offset by the savings in interest and sinking-fund charges.

The municipal reformers, though impatient with the unscientific method of financing the city's public improvements, are pleased with the change made in the authoriza-

¹ See a leaflet, *No Matter Who Is Elected*—No. 25, Nov. 8, 1913, published by New York City Bureau of Municipal Research, pp. 9-10.

tions of corporate stock. Prior to 1910, the Board of Estimate and Apportionment had no comprehensive plan for the consideration and determination of the various activities of the city requiring the issue of corporate stock to meet the capital outlay. Stock was therefore authorized and issued piecemeal whenever a new measure was advocated by a departmental head. This method of financing, together with the lack of careful investigations following the recommendation made by the departmental head, was largely responsible for the excessive allowances.

Once upon a time, city contracts were practically synonymous with that black word—graft. “In too many instances there has been a very vast difference between the first estimated cost and the final cost of improvement discussed, a discrepancy caused by the prevalence of the ‘guess estimate.’” Under the old method of appropriating money for public works, a plan for a hospital, a bridge, or a library was submitted by a commissioner with a rough estimate of its approximate cost. The requests for public funds, which were referred to the comptroller and approved by him alone were made at irregular times. Any additional money that was needed to complete the work or to extend it beyond the original scope, was asked for and granted in the same way, these additions often aggregating more than 100 per cent over the original guess estimate. The following table contains a few startling examples of these guess estimates and their additions.

Date of Completion	Nature of Structure	Original Estimate	Finally Paid	Per cent. of Excess
1909	Manhattan Bridge	\$15,800,000	\$26,500,000	67.8
1909	Queensboro Bridge	12,500,000	18,100,000	44.4
1906	Hall of Records	2,500,000	5,970,000	113.8
1911	New York Public Library...	8,446,600	9,059,700	7.2

A leaflet, published July 6, 1913, by Bureau of Municipal Research, entitled, *No Matter Who Is Elected, No. 6.*

The evil results of such a method of appropriating public funds for public works are:

(1) "An open door to graft and dishonesty." Contractors send in low bids in order to get the contract and then trust to "pull" to help them get additional appropriations.

(2) Waste of material with impunity because more money can easily be obtained.¹

In 1910, the Board of Estimates adopted the corporate stock budget, based on complete examination of corporate stock estimates for all purposes covering the ascertainment of amounts necessary to complete the work undertaken, the cancellation of unnecessary authorization or balances and the determination of new amounts required. "This enabled the board to know the exact obligations of and the amounts due to each branch of the city administration," and to consider each proposed new public improvement with reference to the other improvements. Departments to which an authorization has been made at the budget time are not expected to ask for and to receive any further amount during the year, except in cases of emergency.²

Thus, instead of one official—the comptroller—deciding upon the advisability of these expenditures involving the city in the outlay of millions of dollars, a committee of three composed of the Comptroller, the President of the Board of Aldermen and the President of the Borough of Manhattan, investigates, considers and recommends the corporate stock authorizations for permanent improvements. The best engineers and architects employed by the city are requested to give their suggestions and opinions in regard to the original plans. The estimates made by the depart-

¹ *No Matter Who Is Elected*, No. 6.

² See *Municipal Year Book of the City of New York*, 1913, pp. 39-41.

ment, together with the prices asked by the contractors, are subjected to a challenge by the city. Specifications that show favor to particular patents or individual bidders are detected and rejected.

Corporate stock appropriations, which are restricted to certain particular public improvements, are now segregated in the same way as the tax budget is segregated, and may be used only for the purposes therein specified.

C. THE DEBT LIMIT

In view of the prominent part played by the constitutional limitation on municipal indebtedness, it is important for us to examine carefully into its genesis and operation during recent years. The first suggestions looking toward a restriction of the municipal indebtedness were presented to the constitutional convention of the State of New York of 1846. But the convention did nothing beyond giving general injunction to the legislature to restrain the municipalities in the exercise of their borrowing power. The legislature promptly acted upon the injunction, but the law passed by it was not strictly enforced. The constitutional commission of 1872 gave serious consideration to the entire subject of municipal debt. A special committee in its report says,

The time has come, when it is absolutely necessary to impose some restraint upon the power of municipalities to incur debt, for if that power is continued in the future as it has been in the past, as shown by the statistics herewith submitted, the result will be in the highest degree disastrous.

The special committee presented to the constitutional commission in connection with its report a section prohibiting cities, towns and villages from incurring debt beyond 10 per cent of the assessed valuation of their real property.

The attempt, however, to insert this section into the constitution as proposed by the commission was not crowned with success. Later, various other attempts were made to impose a restraint upon the debt-incurring power of the municipalities, but none of them succeeded in incorporating a restrictive provision in the constitution. It was not until 1882 that an amendment restricting the amount of municipal indebtedness was introduced into the legislature and passed both houses. It was repassed in 1884, adopted by the people by a unanimous vote and went into effect January 1, 1885. It was provided that no city of over 100,000 inhabitants, and no county containing such a city may become indebted beyond 10 per cent of the assessed valuation of real estate within its limits. The issue of revenue bonds in anticipation of the collection of taxes is not, however, within the contemplation of the law. Similarly, the borrowing of money to provide a supply of water for a city was exempt from this limitation, provided the bonds issued did not have a longer term than twenty years.

The above amendment remained in force until 1894, when certain modifications were made. While it applied only to cities of 100,000 inhabitants, and to counties containing such cities, the constitution of 1894 extended the same limitation to all counties and cities in the State. The provision for the exclusion of revenue bonds was also amended so as to require the counties and cities to include them if they are not retired, within five years from the date of their issue. "Bonds issued to provide for the supply of water and any debt incurred by any portion or part of a city shall be included in ascertaining the power of the city to become otherwise indebted."

The charter commission of 1900 recommended that the debt limit be so amended, as to provide that after January 1, 1904, bonds issued for water supply by New York City

should not be included in ascertaining the city's power to become otherwise indebted. Otherwise, the outlay of the vast amount of money that will be borrowed for this purpose would check the extension of other needed improvements. For financial and sanitary reasons, it was deemed advisable and necessary that the water bonds should not be counted in the computation of the city's capacity to incur debt for other purposes. On the basis of this recommendation, an amendment was adopted in November, 1905. A similar demand was made by some of the cities of the second class, and the above exemption was accordingly extended to them by an amendment adopted in November, 1907.

One purpose of the constitutional provision, which should be more clearly stated, is to prevent the municipalities from devoting their borrowed money to works that produce no revenue at all. The interest charges have increased at a rapid rate, and but for this limitation the taxpayers of future generations would be under obligation to meet enormous interest and sinking fund requirements. The constitutional limitation of municipal indebtedness to 10 per cent of the assessed valuation of its real estate puts a direct check on the increase of this burden. To-day the legislature clearly sees the distinction between the non-revenue-producing enterprises and the revenue-producing enterprises. Millions of dollars have now been invested in undertakings which not only are self-supporting, but also yield sufficient income to pay the current expenses of maintenance and operation, as well as the interest and sinking fund charges. Perhaps an additional profit may be made after all the expenses are deducted from the gross receipts. Such an investment is not a burden upon the taxpayers, for it does not call upon them to pay an annual interest charge, nor to create a sinking fund for the

redemption of the debts out of the annual tax levy. It is because water works are self-sustaining, that the bonds issued to provide for a supply of water have been made exempt from the 10 per cent limit.¹

D. COMPUTATION OF THE CITY DEBT

As the constitution limits the city's debt to 10 per cent of the assessed valuation of its real estate, the next question to ask is what is the city's debt or what should be computed to be the city's debt. This present section undertakes to answer this question.

It was only four years ago that the exact amount of the city's indebtedness was determined, although the constitution has for many years limited it to 10 per cent of the assessed valuation of its real estate. Until then "the borrowing capacity of the city was high or low according to the method used by the computer." Some said that the borrowing margin was \$3,000,000; others that the total debt had exceeded the debt limit by \$6,000,000, and still others that it could borrow \$100,000,000 more. This diversity of guesses proved a stumbling-block to all movements for public improvements and brought up the all-important question of determining once for all what the total indebtedness is, or what, if any, deductions should be made therefrom.² In a taxpayers' suit³ it was strenuously contended that in computing the indebtedness of a city within the meaning of the provision of the constitution, it was incorrect to include special franchises as a part of the real estate which is valued

¹ See Appendix I on "The Debt Limit, in Its Relation to Subway Construction," in the *Annual Report (1907)* of the New York Public Service Commission for the first district, vol. i, pp. 437-448.

² See a pamphlet entitled, *Six Years of Municipal Research for New York City*, Bureau of Municipal Research, 1906-11, p. 14.

³ *Levy v. McClellan*, 196 N. Y., 178, Oct., 1909.

for assessment purposes. The language of the constitution is, however, explicit that "the assessed valuation of the real estate 'must be taken' as it appeared on the assessment rolls", and it was shown to the court that the special franchise entered into the valuation of real estate, as it appeared on the assessment rolls. These special franchises are rights or privileges of a public nature, the exercise of which is permitted under grants from the State to corporations, and the legislature, in the general tax law, has classified them as real estate, and they are treated as inseparable from real property in their enjoyment. The article of the constitution must therefore be deemed to comprehend within the term real estate all properties which are made taxable as such by valid statutes.

As to what should, and what should not, be considered as the city's debt, a number of questions were finally determined by the Court of Appeals in 1909, as a result of the Comptroller's opposition to the approval of contracts for the Fourth Avenue Subway. All the parties to the suit, including the referee, and the principal witnesses, welcomed the questions and facts submitted by the New York Bureau of Municipal Research. A memorandum of matters relating to New York City's debt, which suggested the necessity either for judicial ruling or legislation, proposed no less than forty-three alternatives. The detailed arguments were submitted later in "New York City's Debt: Facts and Laws Relating to the Constitutional Limitation of New York City's Indebtedness." All of the forty-three points mentioned in the bureau's brief were taken up and settled by the Court of Appeals in a decision rendered in October, 1909 (196 New York, 178). Several questions, however, which are still in doubt, were not answered by the court, because the litigants either failed to present the facts to the court in these respects, or failed to present them with suffi-

cient clarity. No one can therefore assert that all the questions as to the constitutional indebtedness of the city have even yet been settled, but it is safe to say that the margin of doubt has been reduced to a minimum.

To-day, in the computation of New York City's funded debt, the following classes of municipal borrowings are excluded:

(a) The revenue bonds issued in anticipation of taxes to be collected in the year when such bonds are issued, and special revenue bonds issued to meet expenditures not provided for in the budget of the current year, and which are redeemable out of the tax levy for the year succeeding their issue. But revenue bonds not redeemed within five years from the date of their issue are included. It is not essential to the exclusion of the revenue bonds from the computation of the city's net funded indebtedness that they should have been issued during the year when the taxes, against which they are issued, became payable, provided that when issued, they represented those taxes, within the unpaid amount of the levy and were payable from the proceeds of their collection. Neither the constitution nor the charter fixed the time for issuing them. That is a matter left to the discretion of the comptroller, to be governed in its exercise by the city's needs and the amount of the particular year's uncollected taxes.

(b) The county bonds issued prior to the consolidation of \$19,698,222.48,¹ on the theory that such obligations should not embarrass Greater New York in the extension of its improvements. The provision excluding the county bonds from the computation of the city's net indebtedness was made in 1894, providing that whenever the boundaries

¹ See p. 16 in a pamphlet entitled, *Cost of Government in New York City*, by Mr. Henry Bruere, Director of the New York Bureau of Municipal Research, 1913.

of any city are the same as those of a county, the power of the county to become indebted shall cease. Owing to the creation of Greater New York, this provision was altered in 1899 to apply to counties included within the boundaries of a city, but the debt of the county, heretofore existing, is not to be reckoned as the city's debt.

(c) The debt contracted since January 1, 1904, to provide for the water supply for the city, aggregating \$145,512,393.60.¹ This deduction is based on the theory that these bonds are payable out of the income derived from the sale of water.

(d) The indebtedness incurred for transit and stock investments of \$117,425,778.73, declared by the Appellate Division to be self-sustaining under the constitutional amendment of 1909.

(e) Stocks, bonds and cash held by the sinking fund.

(f) The annual sinking fund installment included in the budget for the current year.

(g) Bonds payable in the current year, provision for which has been made in the current budget.

(h) Cash in the treasury from unallotted proceeds of bonds and cash on hand applicable to the discharge of contract liabilities.

(i) Unliquidated and disputed claims pending against the city.² So far as these may be ultimately reduced to judgment, they will be payable from the proceeds of special revenue bonds, which do not enter into the constitutional purview as existing indebtedness.

The following classes of bonds are included in the computation of the city's debt:

(A) Corporate stock and other long-term bonds issued to provide funds for future improvements.

¹ *Cost of Government in New York City*, p. 16.

² *Municipal Year Book of the City of New York*, 1913, pp. 33-34.

(B) Assessment bonds issued by the city to provide funds for public improvements, such as the regulating, grading, and paving of streets, the building of sewers, *etc.* The cost of this work is divided between the city and the property owners benefiting by the improvements. The holders of these bonds have recourse to the general credit of the city and their claims against the city are not restricted to any special fund created by the payment of assessment. For this reason, assessment bonds are considered an indebtedness and included in the computation of the city debt.

(C) General fund bonds representing the payment of the excess revenues of the sinking fund created for the redemption of the city debt No. 1 with the general fund for the reduction of taxation. Provision is made for the cancellation of the general fund bonds, after the year 1929, provided that they are then still held by the sinking fund as its assets are not required to meet any of its obligations.

(D) Revenue bonds outstanding for five years.

(E) It is the practice of the Department of Finance to include as net contract liability the unpaid portion of the certified and registered contracts payable from corporate stock, special revenue bonds and assessment bond funds, less the amount of cash balances in these funds, against which contracts are registered. Contract liability for water purposes, excluding that portion which has been issued since January 1, 1904, is included.

(F) Liability for open market orders and lands taken by condemnation.

In regard to the open market orders, the practice of the Department of Finance, before 1909, was to take no cognizance of the outstanding unpaid open market orders chargeable against corporate stock fund. Inasmuch as an actual liability exists by reason of the issuance of open market orders, this indebtedness should be included in ascertaining the net contract liability.

The land liability consists of the amount owing by the city to the owners of private property taken for public use. The amount, with interest, is approximated by taking the assessed valuation of the property. By law, the owners are entitled to recover the value of the land, with interest, from the city in which has become vested the title and possession, upon final proceedings taken by the municipal authorities looking to the acquisition of the land.¹

E. THE DEBT-INCURRING POWER OF THE CITY ON JANUARY
2, 1914

The debt-incurring power of the city on January 2, 1914, was \$51,373,749.62, but in addition to this there were commitments consisting of land and contract liability, which had already been charged against the city's borrowing capacity, amounting to \$146,497,112.49. The total of these two amounts, \$197,870,862.11, represents the amount which the city could legally borrow upon its bonds or other evidences of indebtedness before its legal borrowing power within the constitutional limit is exhausted.

The debt-incurring power of \$51,373,749.62, which is the legal limit, may be used for any purpose the city officials may decide upon, without regard to the fact that the government has already made certain commitments, reservations, or authorizations against nearly three-fourths of the total sum. The policy of ignoring commitments and authorizations, provided no contracts had actually been registered against them, was followed by administrations prior to 1910, and was responsible for much of the financial confusion and over-expenditure of the city. It was prevented by the introduction and operation of a corporate stock budget which regards any authorization made against the legal

¹ See a memorandum of matters relating to New York City's debt by Bureau of Municipal Research, Sept., 1908, pp. 3-4.

debt-limit as an obligation of the city, no matter whether a contract has been registered against it or not, in just the same way that a bank would charge against a depositor's account the amount of any check he may have had certified, whether that check had been presented for payment or not. This new policy has effected a large saving in expenditure and has enabled its officials better to understand the real financial condition of the municipality.

In accordance with this policy, the legal debt-limit of \$51,373,749.62 is now available for contract for the following general purposes: rapid transit expenditures, \$2,103,679.42; dock improvements, \$10,641,248.46, of which \$3,782,503.81 has been specifically authorized, leaving \$6,858,744.65 of unreserved margin for new authorization for dock improvement; various other municipal purposes, \$22,049,187.73. This leaves an unreserved margin of \$16,579,634.01 for any uses to which the Board of Estimate may desire to apply it.¹

¹ See the communication from Comptroller Prendergast to Mayor Mitchel, Jan. 2, 1914, pp. 1-4.

CHAPTER VII

THE CITY BONDS

A. NEW YORK CITY BONDS PREFERRED BY INVESTORS

NEW YORK CITY bonds are popular with conservative investors because they look for absolute safety of investment, and this New York City bonds amply afford. Indeed, these bonds are so popular that the buyers are even willing to sacrifice some of their income in order to secure them. United States government bonds are, of course, more secure than New York City bonds, but since the yield is hardly more than 2 per cent, even the most conservative investor does not consider it attractive. The large majority of the United States government bonds are held by the national banks, as a basis for circulating notes.

State bonds owe their value more to the integrity of the issuer than municipal bonds for the reason that any State may repudiate its obligations. There is no law to compel them to pay their debts. The Constitution of the United States makes them immune from prosecution. The eleventh amendment of that Constitution provides that "the judicial power of the United States shall not be construed to extend to any suit in law or equity commenced or prosecuted against any of the United States by citizens of another State or by citizens or subjects of any foreign State." Under this amendment, the immunity of any State from prosecution for fraudulent acts is perfect, and a number of States have availed themselves of it at different times and for different reasons. Following the panic of 1837, during the period of severe depression, Mississippi, Florida, Alabama, North Carolina, South Caro-

line, Georgia, Louisiana, Arkansas, Tennessee, Minnesota, Michigan and Virginia repudiated their debts.¹ Then, after the Civil War, many cases of repudiation were heard of in the South. From 1870 to 1884, nine Southern States declared themselves unable to satisfy their obligations. Perhaps these State bonds will some day be paid when the Southern States are confronted with the same big problems of municipal improvements as the Northern States and required to raise money to pay for them. In order to sell the new bonds, it may seem good policy to satisfy the old creditors. It is only by discharging their old debts that the Southern States can improve their credit standing and be in a position to dispose of their bonds not far below par.

When we come to the bonds issued by the City of New York, or any other political subsidiary of the State, such as cities, townships, counties, *etc.*, we face a very different situation. The payment or repudiation of a debt is not an optional business with New York City or any other city in the Union. Every obligation is a secured obligation, for there is an absolute guaranty attached to every issue of municipal or county bonds. The explanation of this difference is found in the fact that the municipalities and counties do not enjoy the same immunity as the State. They are subject to the jurisdiction of the courts, like any citizen or business corporation of the State.

The security back of a New York City bond is twofold: (1) the property not used for governmental purposes, which the city may own and which can be sold under execution in satisfaction of a judgment, and (2) the obligation of the city officers, when ordered to do so by the court, to levy taxes for the payment of principal and interest of the city's debts.

New York City bonds, like any other municipal bonds,

¹ Scott, *Repudiation of State Debts*.

differ from the bonds of private corporations in that the issue must be in strict conformity with the provisions of the law. The object of putting legal restrictions upon such issue is to guard against fraud and misuse of borrowing power. The first important restriction is that the city is not allowed to incur debt in aid of any private railroad or other outside enterprise. The proceeds of the issue must be used for the benefit of the community. The second important restriction, as pointed out in the preceding chapter, is the limitation placed upon the extent or amount of debts, equal to 10 per cent of the assessed valuation of the city's real estate. Absolute care is taken to secure complete publicity. The law requires that the bonds should be awarded to the highest bidders. For this reason, competitive bids are invited, accompanied by certified checks to substantial amounts as evidence of good faith. In other words, the investor in New York City bonds is protected by the State in every possible way, against excessive and illegal issues. But these legal restrictions, while protecting the investor in every possible way, also place upon him the responsibility for avoiding buying New York City bonds illegally issued, although such bonds have not yet been sold. In this respect, New York City bonds, and other municipal bonds, are different from railroad bonds, the innocent investor in which may be protected by law when he does not know that the charter provisions and the by-laws of the company have been violated. The reason is simple. No investor is supposed to have a knowledge of the internal arrangements of the company. With a municipal bond like that of New York City the case is, however, different. Its issue must be made under a legal procedure, a departure from which makes it illegal. The laws must be strictly complied with and everybody is supposed to have a knowledge of them. If he is careless, his bonds may be declared invalid. This does not

mean that he will lose all he has invested. He can still fall back on the good faith of the city, estimating the bonds at their problematical value. But the trouble is that when the bonds have been declared illegal, it is very difficult to restore the principal in a legal way.

For this reason the bond house purchasing a portion of an issue, concentrates its investigation upon the legal character of the bonds. Of course, it takes into account many other factors, such as the assets of the city, the prosperity of the people, *etc.* But its chief concern is with the legality of an issue. It depends entirely upon the advice of the legal experts it can secure. On the basis of their advice, the bonds are sold to the public which buys them with perfect confidence in their legality.¹

As indicated above, the safety of New York City bonds also lies in the general understanding that they are secured by the pledge of taxes and revenues of the city. Taxes are preferred claims and enjoy a prior lien over real-estate mortgages, since when real estate is sold in foreclosure, the back taxes are first deducted from the purchase price. They precede every cent of earnings on bank stock, since no dividend can be declared until the annual taxes are paid. In fact, they are a first charge on tangible wealth, in whatever form it exists. Moreover, the debt is a community debt, depending upon the wealth and morals of all, and is not subject to the vagaries, business reverses or earning power of individuals or corporations.

B. THE FACTORS CONSIDERED IN FIXING BOND PRICES

In the preceding section, I have pointed out some of the functions of a bond house in New York City at the time of a municipal bond issue. This is to protect the interests of

¹ See an article on "Public Obligations, Municipal Bonds Preferable," by E. S. Meade, in *Lippincott's*, 89, 474-480, March, 1912.

clients and also to inform them on every point regarding the investment offered. Bond houses must do many things before they can decide upon the price they are to offer for the bonds. One might suppose that the only factor to be considered in the fixing of the price of a bond is the market value of current investments. This is, however, a great error. Instead of merely ascertaining the return on a current investment, the bond dealer to determine the value of a bond accurately, must make calculations from many other angles.

In the first place, the location of the municipality issuing the bonds must be considered, preference being given to a municipality which has been settled for a long period. For this reason, New York City bonds are the most desirable and those issued by the newest sections the least. In the second place, careful consideration must be given to the financial condition of the city after its territorial merits are investigated. In the case of New York City, for instance, the proportion of its assessment, as against its real estate, the size of its tax duplicate, the total amount of its indebtedness and of what this consists, *etc.*, are all subjects of special investigations. As to what the city's indebtedness consists of, it can be said that it may be made up of bonds created for special assessment purposes, the construction of water works, erection of school houses, *etc.*, all of which are assets that can be realized on after they are finished. It may also be made up of securities issued for improvements which could not be realized upon, such as sewers and streets. It is the last which the bond houses consider as actual indebtedness. If this is not too large, or if it is not over 8 per cent of the assessed valuation, the bond-issuing city is generally regarded as in good financial condition.

The showing of property owned by New York City is very remarkable. A calculation made by the United

States Census Bureau as early as 1904 placed a value on the salable property of the city of \$686,399,355. A few of the more important items were listed as follows: water works, \$137,000,000; docks and wharves, \$42,950,300; parks and gardens, \$288,174,700. The productive property of the municipality was placed by the Federal authority at \$269,586,928. The property holdings of New York City exceed those of Chicago, Philadelphia, St. Louis, Boston, Baltimore and Cleveland combined.¹ So far as its resources are concerned, New York City stands next only to the United States government. The receipts of the city as early as 1905, exclusive of the proceeds of loans, were over \$125,000,000, while the ordinary revenues of the United States government for the same year were \$544,000,000. Further, the resources of the banks of New York are one-fourth of all banking resources elsewhere in the country. This fact is important, but is not nearly so significant as the fact that of the money deposited in New York City national banks, easily one-third represents the funds of thousands of banks scattered from Maine to California. No other city of the country is so near to all of the other cities of the country in a financial way as is New York.

In the third place, after being satisfied as to the financial condition of the city, the bond houses would consider next the provision for the redemption of indebtedness. It is important to see whether a sinking fund or some other means has been provided to pay off the debt.

As a good portion of the next chapter is devoted to the discussion of the sinking funds of the City of New York, I will pass them by with merely a brief remark. At the beginning of 1906, the accumulated sinking funds of the city amounted to about \$170,000,000. The operation of these

¹ See a pamphlet, *New York City Bonds, a Premier Security*, published by the National City Bank of New York, 1907, p. 7.

sinking funds is an important element of security to the holders of New York City obligations. Incomes of special character, large in amount, are absolutely pledged to the sinking funds to be devoted to the payment of bonds as they mature. If at any time sinking funds are insufficient to cover the payment of maturing bonds, the charter compels the Board of Estimate and Apportionment to include in the annual budget an appropriation to cover the deficiency. This contingency is not likely to arise, however. In fact, as we shall see later on, the city's sinking-fund system has been embarrassed during recent years by a surplus rather than a deficiency of revenues. The system was planned when the revenues were much smaller, and while that condition has been expensive to the municipality itself, it has added materially to the security of all the obligations issued by New York City.

Moreover, the discharge of the city obligations is most satisfactorily guaranteed by the provisions of the New York Charter of 1898, as revised in 1901, in accordance with the recommendations of the notable commission appointed by Governor Theodore Roosevelt. The charter specifies the responsibility of the few men in charge of the city's finances, and it is hardly possible for them to shift their responsibility to their political associates. In the making of a budget, the aldermen have practically no authority, except that they can consider it when submitted to them and reduce certain appropriations, but they cannot increase the items in the budget nor insert new ones. The actions of these few men constituting what is known as the Board of Estimate and Apportionment, are further subject to the supervision of the government of the State of New York. The administration of the city affairs may be investigated by the Attorney-General, under instructions from the Governor, who has power to suspend or to remove from office all of the members of the Board.

More important, however, are the charter limitations on the power of the Board. Under the law, the debt service, including the charges for interest and debt redemption, must be provided for in the annual budget. In the creation of new debt, the charter of the city and the constitution of the State of New York together provide ample and effective restrictions. Aside from the 10 per cent restriction of the assessed valuation of the city's real estate, other restrictions are placed over the conduct of the Board of Estimate. For instance, it is permitted to issue new obligations only for certain specific purposes named in the charter and within definite charter limitations. There may be incurred in any one calendar year not more than \$2,000,000 of indebtedness for repaving of streets, and not more than \$3,500,000 expenditure may be authorized for acquiring school sites and for constructing and equipping buildings. The issue of corporate stock for purposes other than those specifically enumerated in the charter, or for a sum in excess of the amounts provided by the charter, must receive the approval of the aldermen after it is authorized by the Board of Estimate. In a word, the interests of the holders of New York City bonds are amply safeguarded by the charter, both in respect to the discharge of the existing obligations and the creation of new ones.

In the fourth place, attention should be given to the number of inhabitants as well as their tendency to increase. In New York City, the population is increasing at a rapid rate. It is to-day as great as was that of all the states and territories of the United States west of the Rocky Mountains at the last census. It is equal to that of fifteen states and territories; its present total equals the aggregate census figures of Vermont, New Hampshire, Delaware, Oregon, Idaho, Wyoming, Montana, Nevada, Arizona, New Mexico, North Dakota, South Dakota, Utah, Oklahoma, and Indian

Territory. More than this, her ample water facilities and public utilities have been extending as her population has increased. All this is a sufficient proof that the city is progressing and is doing everything in its power to protect her own interests. All this adds strength to the belief that the debt obligation of such a municipality is second in stability and security only to the debt obligation of the general government.

C. DIFFICULTY OF MARKETING THE CITY BONDS

In a preceding section of this chapter, it was said that the chief function of a bond house is to inform the buyers on every point regarding the issue so that the buyers may have perfect confidence in the correctness of its judgment. I have also pointed out that all the essential elements of a good bond, such as security, stability, *etc.*, are found in New York City bonds. All this should increase the ease with which these bonds may be disposed of in the market, but recent experience with bond sales point in the contrary direction. Not only New York City, but cities in general, find it almost impossible to dispose of their bonds at attractive prices and difficult to sell them at any price. Is the trouble with the municipalities or with the general investment conditions? The answer to this question, after a cursory study of the market condition for the securities of all bonds, will inevitably be this—the trouble is mainly with the investment market which cannot afford even to absorb the securities already issued, to say nothing of those to be floated. Not only municipalities are finding it difficult to put out their bonds for sale, but railroads, public utilities and industrial corporations are being compelled to pay prohibitive rates of interest to dispose of their securities and even then they find it difficult to raise as much money as they actually need.

Of course, if we go deeper into the subject, we will develop the fact that while the apparent trouble is with the market conditions, the fundamental trouble lies in the reckless financing of the past. More securities have been and are being issued than the investors can absorb. The large industrial corporations have issued preferred stock and bonds, millions upon millions, and the railroads and public utilities have issued stocks, bonds and notes to such an extent, that the market is flooded with them. The expectations of many of these corporations would be realized, if the investing public could absorb what is already on the market.

Moreover, the municipalities have not been far behind in the race. Their indebtedness is now from two to three times what it was ten years ago. That of New York City alone has advanced from \$461,000,000 in 1903 to \$1,228,000,000 in 1913.¹ The new and rapidly growing cities in the West have poured bonds into the market where ten years ago they were not known as debtors. On top of all these securities—railroad securities, municipals and industrials—there stand preëminently the new classes of bonds, such as those created by the drainage districts, irrigation districts, road districts, sanitary districts, and other kinds of districts.

The difficulty of marketing New York City bonds is well illustrated by their record. In 1903, a sale of \$25,000,000 3½ per cent bonds was made at income rates ranging from 3.32 to 3.45 per cent; in 1904, and 1905, the interest rate remained at the same figure, but sales averaged only a shade above par. Then there followed an increase of the interest rate to 4 per cent; sales were not far from par and the income rates rose from 3.65 to 3.99 per cent in 1906 and 1907. The sales in panic years were, of course, unfavorable and

¹ See a short article on "The Trouble with the Municipal Bonds," by D. Scott, in the *American City* for Aug., 1913, pp. 146-147.

should on that account be regarded as exceptional. In 1909, an issue of \$62,500,000 was put out at 4 per cent, the average price exceeding par only by a small fraction. Then came the \$110,000,000, $4\frac{1}{4}$ per cent, in 1910 and 1911, the income rates rising from 4.15 to 4.20 per cent. In 1912, the interest rate was still $4\frac{1}{4}$ per cent, for \$65,000,000 bonds sold at the average price of \$100.74, with an income basis of 4.21 per cent.¹ The rate for the 1913 issue of \$45,000,000 was raised to $4\frac{1}{2}$ per cent; the highest rate the city has ever been required to pay. The awards ranged from 100.005 upwards and the average of them was 100.159. On that basis, the income rate advanced from 4.21 per cent in 1912 to 4.49 per cent in 1913. Therefore, the income rate which was only 3.31 per cent ten years ago was, in 1913, 4.49 per cent. The three factors involved in the recent bond sales—the smaller offering, the lower bids and the high rate of interest—constitute a cumulative proof of the decline of the market for New York City bonds.

It has been argued that there is really no cumulative proof of the decline of the New York City bond market, because the 1911 bond issue of \$60,000,000 had been declared a phenomenal success. This argument grows out of the wrong interpretation that has been placed upon the figures of that bond sale, which was held in February. Five hundred and sixty-one separate bids were received. The amount of bonds bid for aggregated \$324,032,000, that is to say, the \$60,000,000 offer was over-subscribed some five times. The bonds were sold at the average price of 100.94, on the basis of which the bonds bearing an interest rate of $4\frac{1}{4}$ per cent would yield to the buyer an income of 4.20 per cent. Of the bonds allotted, only three quarters of one per cent (\$500,000) went to private investors; the rest all went

¹ *The Independent*, May 29, 1913, no. 74, p. 1220.

to investment banking houses, banks and insurance companies.

The large number of bidders and the amount of over-subscriptions were certainly impressive. Enthusiasm, on this score, however, is somewhat abated by considering the average price of 100.94 paid for a $4\frac{1}{4}$ per cent bond of the largest and richest city in the United States. Again, the fact that practically the entire issue went to the large financial institutions and that private investors took a very small part in the bidding is a matter demanding sober consideration. It may be argued that some private investors put in their bids through the bankers with whom they are in business relations, but certainly their participation in this issue was disappointingly small. We must not fail to lay stress upon the subscriptions for city bonds in 1911, because unless we inquire into the circumstances surrounding this issue, quite erroneous deductions might be drawn from the great number of bids and amount of oversubscriptions. It was whispered all around on the day of sale that the sale was a phenomenal success in the city's financing; but in considering what one of these sales of city bonds shows or does not show, we must take account of the fact that bankers and brokers habitually bid for many more of the bonds than are actually needed, on the idea that all bids would be scaled down. In addition, we must not overlook another important factor in the bidding. Around the street, in the open market, the 1911 city bonds were being traded in at a given price. To be allotted bonds by the city below that price meant, therefore, a chance to sell out and realize a quick profit. The fact that the 1911 issue of corporate stock was some five times over-subscribed for, is thus by no means a positive proof that there existed an investment demand for any such amount of the bonds. From the \$325,000,000 subscribed, there must be deducted all the excess amount

bid for by those interests which feared lest their lots should be scaled down and then all the subscriptions made with the intention of selling them out immediately at a profit.¹

The discussion of the declining market for New York City bonds may lead one to think that the city's credit is falling. Careful reflection, however, shows that this is not exactly the case. It is true that a glance over the history of the bond sales of the city reveals a downward tendency in the market price of her bonds, accompanied by the opposite tendency of interest rates and income basis, but we must know that the history of bond sales in other cities shows the same tendency. They have also found it difficult to borrow at the old rates. San Francisco, in 1913, could get only a fraction over par for her 5 per cent bonds. Many other instances in the field of investment here and abroad could be cited. In London, at about the same time with the New York City issue of 1913, ten large offerings amounting in all to \$138,000,000 were responded to only by \$14,000,000 of bids from the public. Subscriptions for Brazil's \$55,000,000 five per cent bonds at 97 were only \$4,000,000.

The remarkable over-subscription for the Chinese 5 per cents at 90 should be passed over as an exception, on the ground that at that low price, they yield an income of more than $5\frac{1}{2}$ per cent.

On the other hand, during the years 1908 to 1912, the German imperial loan, 3 per cent, declined 8 points. Prussian consols, 3 per cent, declined $7\frac{3}{4}$ points. French perpetual rentes, 3 per cent, declined 6.75 points. Austrian gold rentes, 4 per cent, declined 6.45 points. The Dutch loan, $2\frac{1}{2}$ per cent, declined $9\frac{7}{8}$ points. British consols,

¹ See an article by Franklin Escher on "The New York City Bond Sale of 1911," in *Harper's Weekly*, Feb. 11, 1911.

2½ per cent, declined 9 1/16 points.¹ It is evident, therefore, that the decline of the New York City bonds cannot be regarded as a sign of its falling credit, because there are declines in the bonds of other cities and foreign countries.

There are several causes of the public failure to accept new good municipal bonds at rates which were attractive not long ago. In Europe, there had been in 1913 an unprecedented hoarding of money as a result of the Balkan War and of fear of similar wars to come. Moreover, some investors awaited the highly favorable terms for the money to be borrowed by those who must pay their war debts. This country cannot relieve itself of the influence of monetary conditions in Europe.

The second cause of the public failure to absorb good municipal bonds, like those of New York City, is found in the competition of other and better-paying securities. There is now a tendency of the investors to luxury and good living, which drive them to abandon the highest class of investments in favor of a lower, but comparatively safe, class, which returns a large income. The city has been accused by some people of extravagance and waste, which they think is responsible for the decline of the prices of its bonds, but we must know that the extravagance of the city has been accompanied by a great volume of personal extravagance, which has caused the people to search for high yielding securities, irrespective of that element of intrinsic value that is regarded as the primal consideration with conservative investors.

The third cause is that new countries are making such great demands upon the credit repository that there is not

¹See an address entitled, "Tendencies in Municipal Credit," delivered by Hon. Wm. A. Prendergast, Comptroller of the City of New York, before the National Association of Credit Men, at its annual convention, Cincinnati, O., June 18, 1913.

enough for general distribution. When that condition prevails, it stands to reason that the government will be judged by the same rigorous rules of credit extension that have been applied to the individual.

The fourth cause of the falling price of New York City bonds is found in the extension to all municipal bonds throughout the State of New York of the tax-exemption privilege. As long as tax-exempt bonds in the state were rare, they sold at a premium. Thus, "the New York City two-and-one-half per cent bonds at one time sold above par, because they were much sought after by savings banks, trust companies and insurance companies, in order to escape the franchise tax."¹ Since 1908, the tax-exemption privilege has been extended to all municipal bonds throughout the state; and this has accelerated the progressive disappearance of the premium on New York City bonds.

The four reasons enumerated above are sufficient to prove that the decline in the market value of New York City bonds is not due to her falling credit. As a matter of fact, there is no reason to doubt the integrity of her credit. The financial record of the city has been without flaw. There is no taint of repudiation to exclude its obligations from the most technical list of "savings bank securities". Detailed statistics may be given to show the prompt retirement of bonds when becoming due. Historically, the financial good faith of New York City is on a par with that of the general government.

The 1914 issue of \$65,000,000 is of special interest, as it illustrates the city's high credit in a large measure. The interest rate is only $4\frac{1}{4}$ per cent, as against $4\frac{1}{2}$ per cent for the 1913 sale, and the amount is \$20,000,000 more than that of the latter which was only \$45,000,000. The income

¹ Seligman, "The Income Tax Amendment," in *Political Science Quarterly*, vol. xxv, no. 2.

rate for 1914 is 4.18 per cent,¹ whereas that for 1913 was 4.49 per cent. The success of the 1914 issue was considered as the more important by reason of the fact that the New York Central had just sold \$40,000,000 bonds and other large issues, including one by the State of New York, have been taken eagerly in the last few months. If it were not for the sending of battle-ships to Mexico, with its suggestion of possible intervention, with the necessity for an issue of government bonds, probably some potential competitors for the city stock would not have withheld their bids, and the result of the sale would have been even more encouraging. All this goes to prove the city's high credit as well as the gratifying improvement in monetary conditions.

In justice to the holders of New York City bonds, it must be said, however, that municipal bookkeeping in the City of New York has not been maintained on as high a level as in private business. It is only within the past few years that some progress has been made in this important branch of municipal work.

To what extent poor business methods have existed and how far they have affected the good faith of the city, is of course difficult to measure. But it can be safely asserted that had better methods been observed, there would have been a closer watch upon the conduct of municipal affairs, because much of the extravagance of which the city has been guilty, has been due to the fact that the people have had no exact and accurate data to enable them to form a correct judgment of the financial condition of the city. If the facts of the city's affairs were not intelligently collected and placed before the people, how could they be expected to entertain a very high regard for the city's bonds?

¹*New York Herald*, April 16, 1914, p. 7.

D. ISSUING BONDS IN SMALL DENOMINATIONS

The difficulty of marketing the bonds has naturally led some municipal experts to devise means of making them more marketable. One of the methods suggested is to sell bonds in small denominations, because it is argued that bonds can be more easily sold in small denominations than in large denominations. According to the *American Review of Reviews*, in 1910, the American railways were then selling their bonds in France in denominations of five hundred, two hundred, and one hundred dollars and smaller denominations. The common people in France are specially fond of investing their savings in bonds of small denominations. The City of St. Paul anticipates its tax levy by selling tax certificates (revenue bonds) to the amount of 80 per cent of the tax levy. In the fall of 1907, a panic year, St. Paul advertised for an issue of \$250,000 4 per cent bonds. As money at that time was very "tight", no bids were received. The law forbade the city to sell its bonds below par; and in order to push the sale through, the comptroller was authorized to sell the bonds over the counter at par and accrued interest, in denominations of \$500 and \$1,000, with the result that the entire lot was disposed of in six or eight weeks. A similar instance of small investment is found in the fact that the common people are now putting their savings in the post office and buying money orders all over this country. All this shows that the common people of this country are not buying one-thousand-dollar bonds.

But what is true in the other parts of the United States, is not true in the City of New York. In 1902, the then comptroller of the city decided upon issuing bonds in denominations so small that the common people, as you choose to call them, could invest. In that year \$29,000,000 of long-term bonds were put out for sale, with a life varying

from twenty to fifty years; in 1905, \$41,000,000; in 1906, \$57,000,000; in 1907, \$79,000,000; in 1908, \$73,000,000, and in 1909, \$72,500,000 were successively put out for sale. Mr. Grout, the comptroller, expected to find a wide market for the bonds by offering them in such denominations that the people who wanted to buy a \$20 bond could have it. But "there was not \$60,000 of one entire issue, amounting to over \$20,000,000, sold in that way."¹

The bonds bore an interest of $3\frac{1}{2}$ per cent in 1902, but they were bought on a 3.10 basis. The savings banks at that time were paying $4\frac{1}{2}$ per cent, but had been reducing their rate while the municipalities had been increasing theirs. Still it was difficult to dispose of the municipal bonds. As a general rule, therefore, the demands for small items are relatively few, although they are large in Europe, owing to the popularity of government and municipal bonds, with the wage-earners. In France, the denomination of 500 francs is more common than any other; in England, £100; in Germany, M1000; and in Holland 1000 fl. In some instances, smaller or larger denominations are issued for part of a loan; as in England, where £200, £500, and £1000 are issued; but as a general rule, the smaller denominations have a broader market.²

It has, therefore, been found true in the City of New York that the small denomination of her bonds did not affect their disposal in the market. On the other hand, the failure of the bond sale of June 8, 1909, together with the depressed prices of New York City bonds at present, is not due to the issue of bonds in large denominations, but, as I

¹ *Proceedings, Fifth Annual Convention, National Association of Comptrollers and Accounting Officers, 1910, p. 113.*

² See an address on "Municipal Financing," by Edmund D. Fisher, Deputy Comptroller of the City of New York, delivered at Annual Convention of the Investment Bankers' Association of America, Oct. 29, 1913.

have pointed out above, to the over-supply of New York City bonds in the market. This is clearly indicated by the current market quotations on New York City bonds. Every additional issue tends to force down the prices of the bonds already outstanding, particularly those bearing a lower rate of interest.

Even if it were possible to increase the marketability of New York City bonds by issuing them in small denominations, still the charter stands in the way; for it says: "Preference shall, as far as practicable, and *without pecuniary disadvantage* to the said City of New York, be given to the applicant for the smallest amounts and smallest denominations of said bonds in issuing the same." This was clearly intended to encourage the average investor to buy the city bonds and at the same time to widen the market for them. But a careful reading of this provision brings into prominence a restriction contained therein, *i. e.*, "without pecuniary disadvantage". This clause ties the comptroller's hands and makes the provision almost a dead letter. A good illustration of this is found in the 1911 sale of \$60,000,000 bonds. Under the law, the comptroller must get as much as he can for them. There were 571 offers for them, one of which came from a syndicate headed by Mr. J. Pierpont Morgan. It was an all-or-none offer, which means that the syndicate offered to buy the entire issue or none at all. The premium offered by the syndicate was 897-1,000 of one per cent. For at least two hours, during the time the bids that had poured into the comptroller's office were being opened, it seemed as if the syndicate's offer had been higher than the average best of the other 570 offers. Here the comptroller was placed in a position of dilemma, which gave him a good deal of embarrassment. Under the law, he was bound to make a single award to the syndicate since it offered the highest price for the bonds. But it was not

good policy for the city to let the whole issue go to any single group of men, because the effect of such a sale would be to discourage the average investor. If such a sale were repeated two or three times in succession, it would deprive the average investor of his chance for a safe investment in New York City bonds, and would place the future sales in the hands of a small group of shrewd bankers. For this reason, Comptroller Prendergast studied the charter very carefully and tried to find out if he had the right to make awards to small investors even should their average bids fall a fraction short of that of the Morgan syndicate. He tried to interpret the clause "pecuniary disadvantage to the city" in the sense of permanent pecuniary disadvantage. But it was a forced interpretation and he finally came to the conviction that he had not the right. If the syndicate's bid was higher than the average best bids of the other 570 bidders, the entire issue must go to the syndicate. Fortunately, the average best bids for the \$60,000,000 of bonds turned out to be three one-thousandths of one per cent higher than that of the Morgan syndicate, the premium they showed being 900-1,000 of one per cent. Consequently, the bonds were allotted to the general bidders and it was hoped that the small investors were encouraged.¹

On the contrary, the 1914 issue of \$65,000,000 bonds bearing interest at the rate of $4\frac{1}{4}$ per cent went to a syndicate composed of Kuhn, Loeb and Company and William A. Read and Company, whose bid of 101.45, was the highest. Its total bid was \$65,042,500, the city thereby getting a premium of \$942,500. But for the slight increase offered by the syndicate, the issue would have been parceled out among many bidders. The difference between the successful bid and the next nearest amounted to only four mills on the dollar or \$4 on each \$1,000 for the entire issue.²

¹ *Collier's Weekly*, 47, 34, May 6, 1911.

² *New York Times*, April 16, 1914, 18, 1.

CHAPTER VIII

NEW METHODS OF FINANCING

NEW methods of financing in the city of New York present a complicated but interesting problem. They are most essential to the welfare of her 5,000,000 inhabitants, because the city's finances have now reached an aggregate of over \$500,000,000 annually. These new methods may be broadly classified under four general headings: (A) new methods of temporary financing; (B) new methods of long-term financing; (C) new methods of sale; (D) new methods of maintaining the sinking funds.

A. THE NEW METHODS OF TEMPORARY FINANCING

About thirty of the principal cities of the United States collect their taxes about four months after the beginning of the average fiscal year. Some of them make collections well in advance; some, as in the case of New York City, make collections about eight months after the beginning of the year. Most municipalities collect only eighty-five per cent of their annual tax levy, during the year, for two reasons—late collection and back taxes. The problem of temporary financing has become fixed within the large municipalities.

In London payment is made semi-annually, and in some boroughs it is optional to pay the taxes quarterly. It has become a prevailing custom in most British provinces to pay taxes semi-annually. In the smaller cities of the United States, however, taxes are received so late that it has been found necessary to sell "revenue warrants" mainly to the local banks, whereas in the larger cities, the fiscal authorities

are obliged to negotiate temporary loans in large amounts, or to sell revenue bonds in small lots as money is required for mtime to time. The life of the bonds varies from one to twelve months; it may be longer as the amounts to be borrowed and the conditions of the market may justify. During the years 1908 and 1909 the amount of these temporary borrowings by New York City had become so large that it was deemed necessary to find a broad market for them in order to effect a saving of interest for the city. But because these evidences of temporary indebtedness were issued under the name of bonds in accordance with the charter, they were not much desired by the foreign buyers, especially in England, where as bonds they were subject to a tax of one-half of one per cent, whereas a payment of only one-twentieth of one per cent would have been necessary if they had been issued under the name of bills. In order to assure the city a broader market, legislation was secured in 1910 authorizing the city to issue these short-term bonds in the form of bills, payable in the currency of foreign countries. The city immediately availed itself of this legislation, and is now enjoying the advantage not only of a broader market for its revenue bonds, but an opportunity to take advantage of the best rates wherever they are found.

These methods, in addition to the operation of the semi-annual tax plan, have effected a large saving in interest, as shown by the following figures:

Interest charge, 1909—\$5,200,000
Interest charge, 1910—\$4,000,000
Interest charge, 1911—\$3,800,000
Interest charge, 1912—\$2,400,000¹

¹ See an address by Edmund Fisher, on "Municipal Financing," delivered at Annual Convention of Investment Bankers' Association of America, Oct. 29, 1913, p. 2.

It is customary in New York to issue bills in sterling, francs, or marks, as the case may be, and this kind of temporary borrowing has reached upwards of £7,000,000 and 75,000,000 *frs.* in a year. They are issued in the form of bills, on a discount basis. This borrowing has resulted in an exchange transaction, when the money is borrowed and when the money is returned. When the money is borrowed, it is received in pounds sterling in London, and in order to get dollars, the city has to sell this sterling. On the other hand, when the loan becomes due, the city has to "buy exchange", *i. e.*, to turn dollars into sterling. As the money is generally borrowed in the spring months when the money market in the United States is favorable, the exchange rates are high; for that reason more dollars can be secured for an equal amount of pounds sterling in the spring than in the fall. On the other hand, when payment is made in the fall, when money is "tight" in the United States, owing to the crop movement, the exchange rates are low; hence, less dollars are required to buy an equal amount of pounds sterling in the fall than in spring. In either case, the city gains, because a considerable profit is made on the exchange. This gain has the effect of reducing the interest on the money borrowed, because the exchange profit very frequently equals one-half of one per cent. A $4\frac{1}{2}$ per cent loan is, in practical effect, on a 4 per cent basis. The same advantage may be taken of the money conditions in the domestic market, if a close watch is kept upon the trend of interest rates. Loans may sometimes be made at $3\frac{1}{2}$ per cent in one week, while in the next week, the rate advances to $4\frac{1}{2}$ per cent or higher. It all depends upon the judgment and experience of the city financiers to get the most out of temporary borrowing. Sometimes, the money conditions are such as to make the city officials choose between short-term and long-term loans. In the past it has frequently been the

case that the interest rates for time money were relatively high, while those for call money were abnormally low. Thirty to sixty-day borrowing with renewals is therefore preferable to the borrowings for the time needed.

B. NEW METHODS OF LONG-TERM FINANCING

It has been customary for the City of New York to go into the market for long-term bond sales more than once a year. This meant that when the city was in great need of money, it would find itself very much embarrassed because of the insufficient supply of funds in the money market. This method of financing had been very costly to the city. The city would certainly benefit much by letting it be known to the financial world that the city would not make long-term borrowings more than once a year. With this object in view, the present comptroller made a single sale of \$50,000,000 in 1910, which was a great success compared with the sales made by other cities. The interest rate on these bonds was fixed at $4\frac{1}{4}$ per cent. The second single sale of \$60,000,000 at $4\frac{1}{4}$ per cent took place on January 24, 1911, and the third single sale of \$65,000,000 at $4\frac{1}{4}$ per cent was held on May 7, 1912. This new method of financing is beneficial both to the investing public and the city, because it does not make a pressing demand upon the money market when money is "tight" and at the same time relieves the city from the necessity of paying abnormally high rates. These large sales, however, were open to the serious criticism that a large amount of money was left with the banks on deposit. The city receives only about 2 per cent interest on its deposits while it pays $4\frac{1}{4}$ per cent on the money borrowed. Therefore, the city really suffered from an unnecessary loss. This criticism was justifiable, although the loss incurred was more than offset by the timely sale. At present, a newer method has been devised to avoid the carrying of

large sums of long-term money in the depositories. It consists of issuing the corporate stock notes for a term not longer than one year, to be paid out of the next succeeding bond sale. The city is now able to borrow money for corporate purposes on these short-term notes, effecting a considerable saving in interest charges, and is in a position to borrow money whenever it is in need of it.

Further, this method of borrowing money on short-term notes makes it possible to get money as required for immediate disbursement, thus giving flexibility in financing which is essential to good business management. Formerly, the city was frequently behind in paying its bills, while it kept on deposit a large amount of money. The question would naturally be asked, Why was it that the payment was delayed, whereas the city had millions of dollars on hand? The answer to this question was that none of the money in the banks belonged to the fund from which a particular bill might be paid. Another cause of delay in the city's payments was that under the law, no payment could be made for a certain contract awarded for a piece of work of public improvement, unless bonds covering that particular contract had been sold. This delay added much confusion to the city's financing and was most oppressive to the city's creditors, especially for land liability. It has been the city's practice to take in land by condemnation proceedings which sometimes lasted for a number of years. The claimants suffered great hardship owing to the delay in making payment for the awards, although they would be entitled to interest from the time the title became vested in the city. All those difficulties were removed by the new method of issuing corporate stock notes for a term not longer than one year, because it places the city in a position to get money when needed, without resorting to the old practice of issuing long-term bonds when it is inexpedient to do so. In consequence

of this change, \$15,000,000 was paid for land acquired in 1910, and \$28,000,000 in 1911, as against an average of \$10,000,000 in the previous years.¹

I have thus outlined two successive steps in bringing about this wise reform: (1) the policy of a single annual sale which affords the bankers and brokers ample opportunity to dispose of the city's securities, without the apprehension of a large sale of new bonds; (2) the policy of issuing notes, which not only prevents the accumulation of big balances with loss of interest to the city, but also enables the city to await favorable market conditions for an issue of corporate stock. As a result thereof, the floating debt of the city July 11, 1912, was \$40,714,022.24, as against approximately \$115,000,000 for the corresponding date in 1910.²

The corporate note is, in effect, a short-time instrument analogous to the railroad note. It is estimated that the city saves approximately \$1,000,000 annually in interest, through the operation of the note issue. These notes have been sold on a basis of approximately 3 per cent, whereas the former corporate stock issues of the city are practically on a 4 per cent basis. By this temporary financing, a saving of about 1 per cent³ was effected. This saving was possible only because of the city's good credit and the favorable money market. If rates were very high, however, the principle would be equally valuable, because a bond sale might be inexpedient.

I have just said that the policy of issuing notes not only

¹ See an article on "New York City Finances," by Wm. A. Prendergast, Comptroller of New York City, in *National Municipal Review*, vol. ii, no. 2, April, 1913, pp. 221-229.

² *Annual Report, 1912-13, of the Chamber of Commerce, New York*, p. 59.

³ *Annals of American Academy of Political and Social Science, 1912*, vol. 14, pp. 74-5.

prevents the accumulation of big balances with loss of interest to the city, but also enables the city to await favorable market conditions for an issue of corporate stock. This is best illustrated by the most recent sale of \$65,000,000, which took place April 15, 1914. When it is remembered that this is a $4\frac{1}{4}$ per cent stock and was sold for more than its $4\frac{1}{2}$ per cent stock brought one year ago, and that the income yield is only 4.18, much lower than last year's, the sale must be regarded as a great success, which undoubtedly resulted from taking advantage of the favorable conditions of the investment market.¹ Owing to the difficulty of making large profits in business and the consequent accumulation of bank deposits, the investment market is just now looking for high-grade securities of which New York bonds furnish a striking example.

The comptroller does not always go into the money market when he issues notes or bills to raise needed funds. Roughly two-thirds of the corporate stock notes issued are sold to the sinking funds. The 1913 issue of \$45,000,000 was to fund the notes issued in 1912, of which about \$18,000,000 were held by the sinking funds. The former practice was for the sinking fund commissioners to bid for bonds when a sale took place, just the same as any other bidder would do. That was before the use of the corporate stock notes. The present practice is to invest the sinking fund money in the city's temporary obligations and in the purchase of the city's bonds or corporate stock in the market. This last feature was introduced in connection with the bond sale of 1913.

C. THE NEW METHOD OF SALE²

On May 20, 1913, the city held its fourth annual bond sale of \$45,000,000, on a four and one-half per

¹ *New York Herald*, April 16, 1914, p. 7.

cent basis. Under the law, New York City cannot sell its bonds below par and all bids must be sealed and opened in public. The bids received amounted to \$76,000,000, the average bid being 100.159. Consequently the sale was heralded as a success, but it must be admitted that it was only a qualified success. In 1912, the city sold its \$65,000,000 bonds at $4\frac{1}{4}$ per cent. The bids received were three times the amount offered, and the average bid was 100.747, although the rate of interest was lower. This illustrates again the principle formulated in a preceding section that an over-supply of bonds depreciates their price.

This method of sale was editorially denounced by one of the New York newspapers, which expressed itself in favor of adopting a direct method of disposing of the city's securities, *i. e.*, placing the bonds directly with the investors or selling the bonds over the counter. It is also claimed that the city officials depend too much upon the banking community and too little upon the patriotism and thrift of the people themselves. They are urged to adopt the French method of sale, which is a direct disposal of bonds among the investors. The French government does not call in the aid of the bankers in selling its bonds. This is true, but we must understand that all the people of France have been educated for many years in investing their savings in government securities. Besides the French bond sale involves a lottery principle which makes the securities attractive to the people. Thus, the prospectus of a certain Paris loan of May, 1912, shows that 3 per cent bonds issued at 95, having thirty-nine years to run, contained the following lottery feature: "There were twelve drawings up to and including 1923, where one bond brought 200,000 frs., one 10,000 frs., five brought 1,000 frs., and thirty-five 500 frs. each. There were four drawings after 1923 on the following basis: One bond at 100,000 frs., one

at 10,000 frs., five at 5,000 frs., and thirty-five at 500 frs. It is quite evident that the investment basis was not the first consideration in bidding for so confused an issue, and that the lottery principle was the reason for the popular demand. Such loans usually are many times over-subscribed." ¹

The implied contrast between the New York and the French method of selling bonds is somewhat misleading. The New York method is both direct and indirect. Under the laws of New York State, the City is required to sell its bonds to the highest bidder, who may, of course, be an individual or a banking syndicate. The latter is a "group of men, bankers, or any combination of the same, who combine their actual interests for the purchase or control of certain properties or securities." ² When the bonds are sold directly to individual investors, they have reached their ultimate buyers, and the sale is direct. On the other hand, when the bonds are bought by bond houses, banks or a syndicate, to be ultimately sold to the public with a certain margin of profit, they have not reached their ultimate buyers and the sale is indirect. The experience of the city shows that the major portion of the bonds offered is purchased by a few bond houses, or banks, and then sold to the general public as the investment demand develops. This raises the question whether it would not be better for the city to adopt the direct method of placing the bonds with the ultimate investors without the medium of the bankers or bond houses. In my judgment it would not, since the present method is more in harmony with the customs and wishes of American investors.

¹ *Municipal Financing*, an address by Edmund D. Fisher, at annual convention of Investment Bankers' Association of America, Oct. 29, 1913.

² Rollins, *Money and Investment*, p. 391.

The American people are differently educated from the French people. They are in the habit of placing their money in savings banks. They prefer to put their money where they can withdraw it in time of need. Even the requirement of a 60 or 90 days' notice of withdrawal in the case of a savings-bank deposit is more satisfactory to the investor than simply to hold a government security, which he is obliged to turn into cash in case of need. The conversion of this piece of paper is rather a costly operation to him, because it has to be done by a broker at his expense. Added to this is the more undesirable element of instability in time of a great financial stress. It may be sold, but at a greatly reduced price.

The average New-Yorker, the man on a salary who is able to save a few hundred dollars a year, would rather take the chance of quick wealth than invest his money in safe New York City bonds at a good rate of interest. Yet it is an undisputed fact that only one out of several hundred men can realize his dreams of enormous wealth. Everyone, however, has a conviction that he is better able than his fellows to select good things and that he will meet with good luck. Nothing could illustrate this more clearly than a comparison of two issues, made in 1911—one by the City of Paris, and the other by the City of New York. The former was a \$70,000,000 issue and was thirty-nine times over-subscribed. A very large proportion of it went to the average investors, or the small subscribers from the country towns and villages of France. In strong contrast, the bonds put out by New York City aggregated \$60,000,000, which was \$10,000,000 less than the issue of Paris. Yet the amount of over-subscriptions was only four and one-half times the actual issue and nearly all the offers came from bankers or their representatives.¹

¹ *Collier's Weekly*, article by Wm. F. Prendergast, Comptroller of New York City, 47, 34, May 6, 1911, on "Why the Average Man Should Buy New York City Bonds."

The last bond sale of the City of New York was advertised all over the country. But there was no indication whatever that the sale was popularized to any extent. One recent bond sale of Philadelphia over the counter was heralded as a great success, but a study of the bids indicates no popular interest in this sale. For instance, of the entire offering of \$7,000,000, about \$4,150,000 was subscribed for by 591 subscribers, while the population of the city had reached, in 1910, 1,549,008. The subscriptions varied from \$100 upwards, but the commissioners of the sinking fund of Philadelphia bought the city bonds to the amount of \$1,225,000. Among the bidders were twenty-five banks and trust companies, sending in an aggregate bid of \$1,015,000. It was reported that Mayor Blankenburg, in apprehension of the possible failure, called upon a leading banking house to arouse popular interest in the sale just after the first day's experience. One of the methods employed was to induce the banks which had been selected by the city as the depositories of the city's funds to bid for a part of the bonds. The result was that of the entire amount of \$4,150,000, the total popular subscription was only \$1,910,000.¹

It will be recalled that during President Cleveland's administration he was seriously criticized by the public for selling United States bonds to a banking syndicate. This led him to attempt to popularize the next sale. Those who conducted the sale claimed that it was a great success, but an analysis of the figures of the sale does not justify such a claim. For instance, the entire offering amounted to \$100,000,000 at 4 per cent, and was over-subscribed over five times. The whole nation furnished 4,635 bids, of which only 818 bids were finally accepted. About \$63,000,000 of

¹ See an address on *Tendencies in Municipal Credit*, by Wm. F. Prendergast, Comptroller of the City of New York, before the National Association of Credit Men, June 18, 1913.

bonds went to the general public, while the remainder went to a syndicate headed by Messrs. J. P. Morgan & Company, who over-bid the large mass of subscribers.

Speaking of the difficulty of making a popular sale, President Cleveland; in his *Presidential Problems*, says:

It was difficult for an ordinary person to make the rather confusing computation of premium and other factors necessary to a safe and intelligent bid. In a transaction of this sort, when the smallest fraction of a cent may determine the success of an offer, those accustomed to the niceties of financial calculations are apt to hold the field to the exclusion of many, who, unaided, dare not trust themselves in the haze of such intricacies.

Thus, the method of direct sale of bonds can hardly be adopted by the cities of the United States. They cannot adopt the lottery principle, as it is against the moral sentiment of the people. They have not the necessary facilities for placing their securities directly with the investors. If they were to employ a large force of salesmen to make use of extensive advertising, in order to sell the bonds over the counter, they would incur a cost far in excess of the small profits now realized by the bankers. Under the recent tight money conditions, attempts were made by certain cities, or on their behalf by merchandising houses, to sell bonds over the counter, but the percentage of successful sales made in this way has been comparatively small and emphasizes the fact that a banking house equipped to do this business is a necessary element in municipal financing.

Furthermore, the American experience with bond advertising shows a material increase in the cost during recent years through an effort to broaden the market for municipal securities. Unfortunately, the results are not compatible with the increased cost. The American mind does not seem

to be psychologically influenced even by the cleverest advertising. A great deal of reliance is still placed upon the salesmanship of bond houses, as the principal agents of distribution of municipal bonds. In European practice, extensive advertising is frequently employed by banks offering public issues.

I have thus proven the difficulty and inadvisability of adopting the new method of selling the city's bonds without the medium of the banking houses. The men who urge its adoption certainly have the welfare of the city at heart, but not knowing the details of bond sales in the United States, they fail to convince the public officials of the feasibility of their plan.

D. NEW METHOD OF MAINTAINING THE SINKING FUNDS

I. *How a Sinking Fund is Established.*—In the cities where bonds are issued on the sinking-fund method, no part of the principal is paid to the holders or investors during the years they are to run. The full amount of interest on the principal is annually collected and paid to the creditors, but a portion of the principal is annually provided for by the budget and paid into an account known as the "Sinking Fund", the fund being invested at a certain rate of interest. If compounded at the rate yearly or half-yearly during the term of the bonds, the fund will grow in size until it will be sufficient to wipe out the entire debt at maturity.

It may perhaps be well to point out here the different circumstances under which the national and municipal sinking funds are established and maintained. The former are created out of the national revenues which are almost entirely derived from indirect taxation. The revenues are uncertain in amount and it is very difficult to make the budgetary appropriations and treasury receipts meet. The budget may call for more or less than the annual treasury

receipts can provide, with the inevitable consequence of a surplus in the one case or a deficit in the other. If it is not an obligatory or mandatory function for the government annually to provide a sum of money for the sinking fund, it might be appropriated for more urgent exigencies of current expenditure and the sinking fund be thus hindered from growth. If, on the other hand, the government is under obligation annually to set aside a sum of money for the sinking fund, it might result in cutting short the appropriations for other urgent needs and borrowing money to cover up the deficiency. In other words, faithful redemption of old debts might lead to the incurring of new debts, even at a higher rate of interest. This is precisely what happened in England during the period of heavy borrowing, 1785-1829, when about three hundred and thirty million pounds sterling were borrowed at about five per cent, in order to redeem the same amount of debt at four and one-half per cent, resulting in an annual interest loss of £1,627,765 for forty-three years.¹ All this illustrated succinctly the fundamental causes underlying the repeated changes of policy relating to the maintenance of sinking fund both by the British and the United States governments.

On the contrary, in the municipalities of to-day, the sinking funds are created out of the revenues derived from direct taxation, which are flexible in amount, *i. e.*, if the budgetary appropriations increase, the amount of revenue can be made to increase through the medium of the tax rate and *vice versa*. In this way the difficulties of treating a surplus and meeting a deficit are removed, and the causes which give rise to temporary suspensions of debt amortization

¹ See an article on "The Sinking Funds of the City of New York," by Edgar Levy, in *Municipal Affairs*, vol. iv, no. 4, Dec., 1900, pp. 1-3.

and uncertainties of sinking-fund policies, as seen in the national government, are wholly absent.

II. *Present Sinking Funds of New York City.*—There are ten sinking funds in the City of New York, established under the above method. Three were established by the old City of New York, two under the present charter, and the other five came through the annexation of Brooklyn and Long Island City. The ten sinking funds, with their resources, are as follows:

(1) Sinking fund for the redemption of the city debt No. 1 (of the old City of New York). The resources of this fund consist of various revenues pledged to it by ordinances and statutes, such as dock and ship rent, interest on deposits, licenses, market rent, railroad franchises, permits for street vaults and the income from the investment thereof.

(2) Sinking fund for the redemption of the city debt No. 2 (the Water Sinking Fund of the old City of New York). The resources of this fund consist of annual installments raised by taxation sufficient in amount with the accumulation of interest thereon at 3 per cent per annum to meet its liability.

(3) Sinking fund for the payment of interest on the city debt of the old City of New York. The resources of this fund consist of the various revenues pledged to it by ordinances and statutes, such as court fees and fines, Croton water revenue, ferry rents and house rent, *etc.* The surplus revenues of this fund are by law transferred to the sinking fund for the redemption of city debt No. 1 (old City of New York).

(4) Sinking fund of the City of New York created by the Greater New York Charter. The resources of this fund consist of the annual installments raised by taxation sufficient in amount with an accumulation of interest thereon at 3 per cent per annum to meet its liability.

(5) Water Sinking Fund of the City of New York created by the Greater New York Charter. The resources of this fund consist of annual installments raised by taxation, suffi-

cient in amount with the accumulation of interest thereon at 3 per cent per annum to meet its liability.

(6) Sinking Fund of the City of Brooklyn (of the old City of Brooklyn). The resources of this fund consist of annual installments raised by taxation and accumulation of interest thereon to meet its liability, and in addition thereto the income from bonds and mortgages held by the city which are liens upon so-called East Side Park Lands, assessments collected for account of Prospect Park and its share of surplus revenue of the New York and Brooklyn Bridge.

(7) Water Sinking Fund of the City of Brooklyn (of the old City of Brooklyn). The resources of this fund consist of water revenues collected in the Borough of Brooklyn in excess of the amount thereof required for the payment of interest on water bonds issued for account of the Brooklyn water system and the annual cost of the maintenance and extension of the system.

(8) Sinking Fund of Long Island City for the redemption of revenue bonds. The resources of this fund consist of the amounts collected on account of arrears of taxes in Long Island City imposed prior to 1896.

(9) Sinking Fund of Long Island City for the redemption of fire bonds. The resources of this fund consist of an annual installment raised by taxation sufficient in amount with its accumulation of interest to meet its obligation.

(10) Sinking Fund of Long Island City for the redemption of water bonds. The resources of this fund consist of annual installments raised by taxation sufficient in amount with its accumulation of interest to meet its obligation.

Sinking funds 8, 9 and 10 are insignificant in amount.¹

III: Equalisation of Burdens between Present and Future Taxpayers.—In many cities in the United States, the annual portion of the principal to be paid out of revenue into the

¹ See a pamphlet, *New York City Bonds—A Premier Security*, published by the National City Bank of New York, 1907, pp. 14-16.

sinking-fund account is not scientifically calculated, so that when the bonds mature, the sinking fund is, as a general rule, more than sufficient to redeem them. As this method would leave an excess in the fund, it should be condemned, because it has the effect of taking out of the pockets of the taxpayers each year more money than is actually needed. For instance, in the case of the sinking fund for the redemption of the New York City Debt No. 1, the revenue pledged would yield a large surplus over and above the amount required for the amortization of its obligations. The surplus would be so large that in 1928, when the final obligation will be due, there would be on hand in that fund nearly \$300,000,000 in excess of the amount required to redeem the obligations. This excess will be invested in the corporate stock of the City of New York and according to the law it will then be cancelled.¹ As a result, the collection of money from the taxpayers to pay the annual amortization installment and interest charges on \$300,000,000 corporate securities will suddenly cease in 1929 and "the budget of that year will be some \$16,000,000 less than in the years previous. This is a delightful prospect for the taxpayers of 1929." This benefit will be given to them at the expense of present taxpayers who are bearing the increased burden of taxation to provide a sufficient fund to redeem the obligations in 1929. The proper method of equalizing the burden of the taxpayers of the years before 1929 and those of the years after 1929 would be to appropriate the excess of each year for the reduction of taxation instead of pledging and appropriating it to the sinking fund No. 1.

But any attempt to appropriate and use the excess of revenue to reduce the burden of taxation would amount to a breach of the contract, sanctioned by the Act of 1878, pro-

¹ Section 206, Greater New York Charter.

viding that all the revenues so described shall be paid into the sinking fund until all the obligations of that fund were redeemed. This situation, however, is adequately met by the creation of a new class of securities known as the General Fund Bonds, issued by the city and held by the sinking fund commissioners, to the amount of the excess revenue. The proceeds of the issue go to the general fund to reduce taxation. It may be reasonably asked why does the city not transfer the excess revenues to the current account in cash, and what is the use of issuing general-fund bonds in order to get cash? The answer to these questions is that there is a contract, according to the Act of 1878, existing between the city and the creditors, providing that all the revenues therein described shall be pledged to the sinking fund No. 1. Therefore the excess revenues cannot be transferred in cash; they can be appropriated and used for the reduction of taxation only through the medium of the general-fund bonds, which must be bought and held by the sinking-fund commissioners, in order to guarantee the same security to the bondholders as if the excess revenues were still part of the sinking fund. These bonds are an obligation of the City of New York just the same as all other bonds issued by the city are.¹

They bear interest at a rate not exceeding 4 per cent, nor more than the then rate on sinking-fund investments, and are to be cancelled in 1929. The commissioners of the sinking fund have the power to dispose of the general-fund bonds to the public in the event of the revenues of this sinking fund being insufficient to provide the necessary annual installment.²

¹ See a pamphlet called *As to the Legality of the Plan to Relieve Taxation in New York City*, by Edgar J. Levy, published by the Department of Finance, New York City, 1902.

² See *Municipal Year Book of the City of New York*, 1913, p. 32. For

IV. *Serial Bond Method v. Sinking Fund Method.*—Sound municipal financing requires sound methods in the creation of sinking funds, or in the amortization of debt incurred. Until recently the practice in New York in this respect had been unsound, and as a result, there have been advanced many arguments in favor of the substitution of the sinking-fund method by the serial-bond method of amortization. The latter provides for the payment of a stipulated portion of the principal each year, in addition to the interest on the issue outstanding from year to year. The serial form undoubtedly is the best type of bond for small municipalities, where the issues are not large and where series of bonds may be taken by individual investors. In the case of large cities, it will be objectionable owing to the difficulty of disposing of such bonds.

The sinking-fund method of bond issue originated because investors were averse to buying bonds which provided for the return yearly of a portion of the principal, necessitating the reinvestment, annually, of small amounts. At any rate, debentures of the latter class brought a less price in the market; hence the sinking-fund idea was introduced to place the onus of reinvestment upon the shoulders of the municipality or corporation obtaining the loan, thus giving the investors the advantage of a longer, more permanent and to him more satisfactory investment. As a great borrower, New York, of course, must issue its securities in the form which will find most favor in the bond market, which has a great objection to the method of annual redemption. Furthermore, from the taxpayer's point of view, the serial bond is objectionable because of the wide variations in the annual appropriations, and the burden does not therefore fall equally upon him from year to year.

a detailed account of the sinking fund for the redemption of city debt No. 1, see Mr. Edgar J. Levy's "Sinking Fund of New York City," 1900.

On the other hand, even to a large city, the serial bond has an obvious value. It saves interest and does not require the provision of a sinking fund. Interest is saved because the principal is paid off each year in equal annual installments included in the tax levy. No sinking-fund provision, therefore, is necessary. For the first fourteen years of a fifty-year-serial-bond issue maturing in equal installments, the debt-service charges would be more than the charges for fifty-year bonds amortized by a sinking fund.¹ On the fifteenth year and on each year thereafter, when the redemption of the bond cuts off interest payments, the annual charges on serial bonds would grow steadily less than the charges for interest and sinking-fund installments on the fifty-year term bonds.

To make the serial bond attractive to the investors, it is suggested that they may be issued in series falling due at five-year intervals. Thus, the first installment will fall due at the end of five years; the second, at the end of ten years; the third, at the end of fifteen years; and so on. This plan would materially decrease the objectionable feature of returning each year a small portion of the principal and necessitating its reinvestment.

A good suggestion has been made that the city should have the right to redeem its own bonds to be issued hereafter, any time before they become due, after a period of ten or twenty-five years from the date of issue. This plan would save the city a large amount of interest, when it was financially able to redeem the bonds considerably before maturity. It must be remembered, however, that a bond of this type sells at less advantage to the city, because the bid

¹ See a pamphlet entitled, *No Matter Who Is Elected—No. 25*, published by the New York Bureau of Municipal Research, Nov. 8, 1913. It contains also some excellent suggestions relating to the treatment of sinking funds and establishment of depreciation funds.

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is based upon the assumption that the bonds are to be redeemed considerably before maturity. The issue of such bonds when the interest rate is very high is advantageous, provided that the city may refund them at more advantageous rates when they become redeemable.¹

The new method which Comptroller Prendergast has recently devised and for which special legislation is necessary, admits of issuing ten-year serial bonds, thereby replacing the fifty-year long-term bonds.

The following illustration of the method serves to show its efficacy.

Upon the assumption that the city has absolutely necessary improvements to make, involving an outlay of \$50,000,000, the sum is borrowed on the corporate-stock notes, with the provision that an installment of one-tenth of it is to be included each year for ten years in the annual tax budget and a corresponding amount of the notes is to be annually retired. A comparison of this new method of borrowing, with the present method of issuing long-term bonds, brings out a wonderful result. To illustrate, an issue of \$50,000,000 of short-term notes at 4 per cent, to be paid during the next ten years in ten annual budget installments, including principal and interest, would represent an aggregate outlay by the city during that period of \$61,000,000, but at the end of that time, the indebtedness would be completely discharged. On the other hand, if the city were to issue, as has been the practice, \$50,000,000 of fifty-year bonds at 4½ per cent, the interest on them would amount to \$112,500,000, and the amortization charges, \$22,163,750. These two amounts aggregate \$134,663,750, which is the cost of such a \$50,000,000 fifty-year bond issue. A comparison of this cost with that of a ten-year serial bond issue

¹ *No Matter Who is Elected, op. cit.*

gives a difference of \$71,663,750,¹ which is saved for the city. A bill which would authorize the city to carry out this plan has already been drawn under the direction of the comptroller.

V. Changes in Sinking Fund Investments.—The principles involved in the general subject of sinking-fund amortization are simple and may be stated as follows:

(1) A sinking fund, as stated in a preceding section, is so established that the annual installment, compounded yearly or half-yearly at a certain rate, will be sufficient to redeem the principal at maturity, in nothing but cash.

(2) The use of the sinking-fund money for investments, therefore, involves the idea that the investments may be readily sold for cash prior to the maturity of the bonds to be redeemed.

(3) If the investments are made in the new city bonds which will mature long after the cash invested is needed for the redemption of the old bonds, they are not available for the purpose of amortization. Even when investments are made in the old issues, they should be in such old issues as will mature prior to the issues which they are presumed to amortize. On the other hand, if the investments are made in the issues maturing after the cash so invested is required for use, it is an unsound practice, because it is impracticable to sell such bonds. Any attempt to sell bonds of this character to the public would disturb the security markets and seriously interfere with current financing. Therefore, the practice of investing the sinking-fund moneys either in the new issues or in the issues maturing after the cash is needed for use, will eventually cause a great crisis when it is nec-

¹ See an address on "Change in the Policy of Long Term Borrowing," delivered to the New York Credit Men's Association at the Hotel Astor, by Comptroller Prendergast, Jan. 15, 1914.

essary to secure cash from the taxpayers for the purpose of amortizing the original debt.¹

(4) The sinking funds can be invested only in the evidence of city debt,² because the bonds of other cities may lack stability and safety. The best way of making the sinking-fund investments is either in the city's short-term obligations, which are continually being redeemed from revenues and payment of which will incur no additional burden upon the public, or in the purchase of bonds in the hands of the public which it is incumbent upon the sinking-fund commission to amortize—*i. e.*, in the purchase of the bonds of the specific issue to be paid. If this latter principle was carried out year by year, on a *pro-rata* basis, there would be no accumulation of debt maturing at one time, because the only portion becoming due at the end of the term—for instance, the fiftieth year of a fifty-year bond—would equal only one-fiftieth of the original debt, the preceding forty-nine proportionate portions having been amortized by the previous annual purchases.

Students of bond investments have severely criticised municipalities for purchasing their own bonds in order to keep them alive in the sinking fund. Besides New York, there are many other cities which require the sinking-fund cash to be invested in nothing but their own bonds. If these bonds, when bought back, were cancelled, the effect would be the same as if the municipality had reduced its debt. But if the bonds, when bought back, are still tied up in the sinking fund, such a policy is in direct violation of sound economic principles. If a man borrows money on his note and later redeems it by paying back the money bor-

¹ An address on "Municipal Financing," by Edmund Fisher, delivered at annual convention of the Investment Bankers' Association of America, Oct. 29, 1913.

² *Municipal Year Book of New York City*, 1913, p. 33.

rowed, he ought to offset it against the debt. The note ought to be automatically cancelled. If instead of cancelling it, he keeps it and considering himself as owing himself the sum, pays himself the same interest as before until the note falls due, everybody would think him a fit subject for the psychopathic ward. Such a policy, however, has become a common practice with American cities.¹ Further, sound economic principles require the sinking fund to be taken care of by men out of touch with the borrower, because in that case it is entirely beyond the power of the debtor to minimize the security of the loan. On the other hand, if the sinking fund is invested in the borrower's own bonds or obligations, it gives the creditor no additional security whatever. "It is a worthless device, so far as he is concerned."² He will be best secured by using the sinking-fund money in the purchase of various high-grade bonds, which are far removed from the control of the borrowing corporation. On this ground, the funds of Providence, Rhode Island, may be invested in the bonds of the Federal Government, of the State Governments of New England, of the cities of Rhode Island, and of sixteen other cities of very high credit. But "the bonds of each of said cities shall be a lawful investment, only so long as its indebtedness, less its water debt and sinking funds, shall not exceed 7 per cent of the assessed valuation."³

The results we have thus far reached in this and the preceding sections, may be summarized as follows:

- (1) The use of the serial-bond principle in place of the sinking-fund principle is desirable for small cities only.
- (2) The strict application of the amortization principle,

¹ Lawrence Chamberlain, *Principles of Bond Investment*, pp. 213-214. Henry Holt & Co.

² Chandler, *The Metropolitan Debts of Boston and Vicinity*.

³ Lawrence Chamberlain, *Principles of Bond Investment*, p. 215.

or what is the same thing, the principle of "killing" the debt in a scientific manner is twofold:

(a) The adoption of a prearranged plan of calling and paying-off bonds at stated intervals, or

(b) The application of the sinking-fund cash to purchasing bonds from time to time, preferably during the periods of depression.

In New York City the last principle has recently been applied. To-day, the city goes into the market to take up the bonds outstanding in the interest of the sinking funds. The sinking-fund commissioners naturally accept the tenders most favorable to the city from the public. As the bonds are purchased during the period of depression in order to get a low price, the effect will be to keep up the prices of the bonds in general. It was probably with this end in view that when the 1913 sale of \$45,000,000 4½ per cent bonds was made known, the comptroller, as a member of the sinking-fund commission, announced that he would purchase, for the account of the sinking funds, on or after June 2, 1913, city bonds or stock then held by the public to the amount of \$5,000,000, giving preference to such tenders as are on a basis most favorable to the city. Instead of buying part of the new issue, the city bought in older bonds. The effect of this buying was calculated to benefit the city in two ways. If the new bond sale would depress prices of outstanding bonds, bearing lower rates of interest, the city would buy them up at comparatively low price. On the other hand, the offer might result in keeping up the price of outstanding issues.

The sinking fund, even after the purchase of \$5,000,000 of city bonds, on or after June 2, 1913, contained about \$28,000,000 in cash, owing to the fact that they contained \$28,000,000 of corporate-stock notes, which were paid off from the proceeds of the new bond issue. The May issue

of 1913, therefore, threw about \$28,000,000 of cash into the sinking funds,¹ and put them in shape to buy new notes and bills, if the city would issue them in anticipation of the next sale of bonds and in anticipation of the next semi-annual payment of taxes. This makes the comptroller practically independent of the money market for several months. He could sell his notes and bills to the sinking funds if the rates in the market rise as they are likely to do in the harvesting season at the end of summer.

This practice of buying in bonds nearest the dates of maturity has almost revolutionized the old unsound method of using the sinking-fund cash, which consisted in purchasing new city bonds for sinking-fund investment at the time of their issue, thereby deferring for twenty or fifty years the return of cash for use in redeeming outstanding bonds. In addition to this advantage, by shortening the period of investment, it will greatly simplify the problem of the sinking-fund commissioners in finding cash to meet maturing bonds.

¹ *New York Times*, May 4, 1913, viii, 14, 1.

PART IV
**CONTROL OF REVENUES AND EXPENDI-
TURES UNDER THE NEW SYSTEM OF
ACCOUNTING**

CHAPTER IX

CONTROL OF REVENUE ACCRUALS UNDER THE NEW SYSTEM OF ACCOUNTING

A. COST OF INSTALLING THE NEW SYSTEM

Before proceeding to a detailed discussion of the accounting control over revenues and expenditures, it would be advisable to consider the cost of installing the new accounting system, so that the two sides of the problem—the cost of installation and the benefits derived therefrom—might be compared. Unfortunately the department of finance has never set up accounts in its books, showing the various elements of cost entailed in the installation of its accounting methods, so that the data for such a comparison are lacking. The reasons why the cost of installation cannot be determined are as follows:

1. A large portion of the expenditure incurred in reorganizing the department of finance was borne by the Bureau of Municipal Research, which is a non-partisan private institution. In six years from 1906 to 1911, the Bureau spent \$100,000 on the work directly for and in the comptroller's office.¹

2. Although some expert accountants were employed by the department of finance, especially for this task, many experienced officials under the comptroller, while assigned to their regular duties, were asked to cooperate from time to time with the men from the Bureau of

¹ *Six Years of Municipal Research for New York City*. issued by the Bureau of Municipal Research, 1911, p. 17.

Municipal Research and the expert accountants in the devising of the new forms and the improvement of the antiquated methods. It would be impossible to allocate their salaries according to the respective amounts of time they spent on their regular duties and on their contribution of the extra service. Furthermore, the continuous improvements made from year to year and in some cases from month to month, add immensely to the difficulty of keeping an accurate cost account.

3. What is true of the department of finance is also true of the outside departments, where the new system has been, either wholly or partly, installed. For instance, the water department was completely reorganized only after the Bureau of Municipal Research had made a very thorough and expensive investigation into the chaotic condition of the department's records. The department's employees had also been detailed to do extra service in connection with the inauguration of the new system.

For the above-mentioned reasons, I deem it wise not to put down here a few known items of expense directly incurred for this purpose, because such items, small in amount as compared with the total cost of installation, do not reflect the magnitude of the price paid for the new system. There is, however, a consensus of opinion among the experienced city officials whom I have consulted that the amount paid was inconsiderable as compared with the economies, both direct and indirect, traceable to the reconstruction of the system.

B. INADEQUACY OF ACCOUNTING CONTROL OVER REVENUE ACCRUALS

Prior to 1900 the great majority of government accountants and officials in the United States made no distinction between the revenues accrued and the revenues

received. They practically paid no heed to the revenues recorded or billed as distinguished from revenues received, save in the case of the general property tax and special assessments.¹ As soon as taxes are levied they should be treated as an asset of the taxing authority because although they have not yet been received, they have nevertheless accrued. Yet no government accountant has acted on this principle.

New York City has taken a forward step in the right direction by installing in the office of the auditor of receipts of the department of finance, and in the outside departments, several accrual registers for the purpose of establishing an accounting control over the revenue accruals. Accrual reports have been submitted by the auditor of receipts since December 31, 1910.²

C. THE CLASSES OF REVENUE ACCRUALS

The following classes of revenue are now treated as accruals to the city:

1. Revenues from rents, derived from leasehold agreements, etc.
2. Revenues from licenses, derived from the formal grant or permission of the city to persons or corporations to conduct certain classes of business, etc.
3. Revenues from permits, derived from the formal grant or permission by persons in administrative or executive authority for the performance of special acts, the expiration of the grants following the performance of the acts.

¹ *Proceedings, Seventh Annual Convention of the National Association of Comptrollers and Accounting Officers, 1912, p. 98.* See a paper read before the convention by L. G. Powers, on *Revenue Accruals*.

² Report of the Division of Expert Accounting, 1911-1912, vol. i, pp. 125-134, in Municipal Reference Library in Municipal Building.

4. Revenues from office fees, fines, penalties, etc., derived as charges for clerical and other official services rendered, such as recording, certifying, administering oaths, etc., and also as charges imposed by courts and other officers exercising a judicial discretion.

5. Revenues from taxes, assessments, water rates, redemptions, franchises and miscellaneous receipts, tolls, forfeitures, interest, advances, etc.¹

Accounting control is now established over all these classes of revenue accruals which are treated either as accruals creating accounts receivable or as accruals coincident with cash, as shown below.

D. CONTROL OF REVENUE ACCRUALS CREATING ACCOUNTS RECEIVABLE

I. *Control Established through the Accrual Registers.*

—The three principal elements of accruals, creating accounts receivable, are taxes, assessments and water rents.² I will take up the first in this chapter, omit the second from discussion, owing to the lack of space, and reserve the third for the following chapter.

The department of taxes and assessments prepares the tax rolls and extends the tax against each individual piece of property, both real and personal, as spread upon the rolls. They are then transmitted to the department of finance, where the auditor of receipts audits the amount of taxes levied to the assessed valuations. This is done by multiplying the assessed valuations of, say, each sec-

¹See a paper read by Hon. Herman A. Metz, ex-comptroller of the City of New York, on *Budgetary and Accounting Revision*, before the association of American government accountants, at Washington, D. C., Nov. 24, 1908.

²I wish to acknowledge my indebtedness to Mr. H. H. Rathyen, Auditor of Receipts, for much of the information on which this chapter is based.

tion by the tax-rate for the year, for which the taxes are levied. The product should equal the amount of taxes levied on each section. The rolls are then entered in the accrual registers, kept at the office of the auditor of receipts, there being separate accrual registers for each borough and, also for the different classes of taxes as follows: 1. Real estate—land and buildings; 2. Special franchises; 3. Real estate—corporations; and 4. Personal taxes.

Each register is divided by sections and subdivided by volumes corresponding to the tax rolls or volumes. The amount of the original tax levy of each section or volume is shown in the upper right-hand corner of the respective pages. The register contains columns for entering the amount of taxes collected, the amount of taxes canceled, the amount of interest charged and collected, etc. The cancellations are controlled by the registration of the orders originating in the office of the auditor of receipts before they are turned over to the receiver of taxes and are audited to the account current from the receiver of taxes.¹ The totals of the registers are used as a basis for formulating general journal entries to be posted to the general ledger, as we shall see later on.

II. *The Pre-billing of Taxes.*—When the tax rolls are delivered by the department of taxes and assessments to the receiver of taxes, to whom a warrant has been issued by the city clerk, directing him to collect the taxes levied, it is the duty of the auditor of receipts to detail some of his men to coöperate with the men under the receiver of taxes in the preparation of tax bills in triplicate, the original being used as a receipted bill for taxes paid, the

¹ *Manual of Accounting and Business Procedure*, p. 297.

duplicate or counterfoil as a basis for auditing, and the triplicate as an advice to the taxpayer of the amount. The taxes are pre-billed by means of a billing machine, such as the Elliott-Eischer and Remington. About 600,000 bills are prepared within three weeks. The three copies of each bill are made out by one operation. At the same time that the bills are written, a schedule of bills is written on the same machine. Each schedule contains fifty lines for fifty items and is so placed on the machine that the adding devices thereon will automatically throw a total of all the fifty items. This total is then checked to the total of the fifty items on each folio of the tax rolls and enables the comptroller or the auditor of receipts to audit the tax bills before they are ready for collection. A great many errors are discovered by this process of pre-billing.¹

III. *The Advantages of Pre-billing.*—The idea of pre-billing the taxes is that if the bills are ready promptly, the payments will be made promptly. Not only are the tax bills prepared in advance, so that the taxpayers can have them when they call for them, but they are also prepared, as stated above, in triplicate forms, so that when a taxpayer applies for a bill, the triplicate or the "advice," showing all the details necessary for information, can be given to him. This new method of preparing the tax bills enables the department of finance to establish for the first time in the financial history of New York City, a thorough control over the collection of the city's taxes.²

IV. *Control of Cash Payments by a System of Internal Checks.*—After the tax bills are prepared and audited by the auditor of receipts, they are filed in a cabinet at the

¹ See a pamphlet, *How New York City Writes its Tax Bills and Collection Sheets*, in Municipal Reference Library, in Municipal Building.

² *National Municipal Review*, April, 1913, pp. 223-224.

office of the receiver of taxes, according to the tax reference—section, block and lot. About 200,000 requisitions are made upon the receiver of taxes by the taxpayers in a few weeks. They are filed as soon as they are received and the memorandum bills or the triplicates are mailed to them as advices of the amounts due. The advices come back when payment is made. Taxpayers desiring to pay the taxes in person will first present themselves at the first window in the office of the receiver of taxes and tell the clerk the tax reference of the property on which they wish to pay the tax. The bill, containing the original and the counterfoil or duplicate (the triplicate having been previously torn off and sent away as advice), is then extracted from the filing cabinet. The amount on the bill is registered by an adding machine on a roll of paper in duplicate. One slip is torn off, pinned to the bill, and transferred with the bill to the cashier at the next window. The taxpayer then moves over to the next window and makes his payment. The amount of money is then stamped on the bill by a perforating stamp, which perforates both the original and the counterfoil. The original is detached and given to the taxpayer as a receipted bill, and the counterfoil or duplicate is sent to a registration clerk, who keeps a cash book or a cash "tickler," showing the name of the payer, the description of the property, etc. At the close of the day the total amount as shown on the roll of paper on the adding machine at the first window should agree with the total amount of cash registered in the cash book. Each of these two total amounts should agree with the amount of cash in the hands of the cashier, if all bills are fully paid. But in many cases taxpayers have not got enough money to make full payment. The clerk in the first window has, however, entered the amount of the bill on the

roll, charging the cashier with the amount. If the cashier does not collect the full amount from the taxpayers, the unpaid or uncollected amount must be represented by the unpaid vouchers. The total of the cash and the unpaid vouchers in the cashier's hands must be equal to the footing on the adding machine at the first window, or the difference between the footing on the adding machine and the total amount of cash on the cash book should be the amount of the unpaid vouchers in the cashier's hands.¹ Thus, the clerk at the first window, the cashier and the registration clerk who keeps the cash book are each a check on every other.

The registration clerk, when entering the amount paid on the cash book, distributes the amount by the several classes of taxes, viz., real estate—land and buildings—real estate of corporations, special franchises, personal taxes, water rates, etc.² The water rates are the arrears transmitted by the water department to the tax office for inclusion in the tax rolls as liens against property.

V. *The Auditing of Collections.*—The counterfoils, or duplicates, after being used by the registration clerk, will be assorted in accordance with the sequence of the tax reference and listed on an adding machine, those for the individual tax rolls being brought together and listed on separate schedules of collections. The total thrown on each schedule is the total of the items collected for each tax roll. After the schedules are reconciled with the bills representing the collections for the day, the duplicate schedules of collections, together with the counterfoils, are sent to the auditor of receipts for audit.

¹ See a pamphlet, *Procedure Pertaining to the Collection of Taxes, in the Bureau for the Collection of Taxes, Department of Finance, New York City*, pp. 6-8.

² *Ibid.*

He will check the counterfoils to the schedules and verify their footings.¹ At the close of the day, the cashier prepares a report, setting forth the amount of collections for that day, distributed by classes of taxes collected and the funds to which they are to be charged. The report is forwarded to the chamberlain or treasurer. After that, it goes to the city's banking depository, accompanied, of course, by the amount of cash recorded in the report. The receiving teller of the bank will then certify on the report the amount of cash received. The report then returns to the chamberlain's office, where the figures necessary for his own accounts, are extracted from the report. It is then forwarded to the comptroller's office, where the auditor of receipts will audit the figures shown thereon to those entered on the schedules of daily collections. If they are in accord, he will cause an entry to be made in each of the following :

1. The accrual register, in liquidation of the accruals.
2. The cash book journal, from which totals will be taken at the close of each month to be posted to the general ledger through the general journal.
3. The control sheet, which is an account receivable ledger.

I shall discuss these records in detail in the following pages. For the present, it is important to remember that by auditing the cashier's report to the schedules of collections, the comptroller is assured that the money shown to have been collected by the receiver of taxes on the schedules of collections, is exactly the amount turned into the city treasury, the unmistakable evidence of which is the chamberlain's receipt voucher.*

¹ *Procedure Pertaining to Collection of Taxes, etc., op. cit., p. 9.*

² See an address on *Taxes* by Mr. James, Auditor of the Water Department, delivered at New York University, 1913-14.

VI. *The Control Sheet and its Purpose.*—I have already discussed the registers of accruals for the purpose of establishing an accounting control over the accruals. In addition thereto, a separate control is also established over the transactions in the bureau of collections by setting up controlling accounts in the control ledgers or control sheets. The total of each tax roll or volume, before filed in the cabinet kept in the office of the receiver of taxes, is entered as a debit on the control sheet, while the collections as shown on the duplicate schedule of collections pertaining to that roll, are entered thereon as a credit.

The duplicate schedule of collections having been sent to the auditor of receipts, the original schedule is retained by the receiver of taxes for the purpose of liquidating the taxes on the tax roll by posting the amount paid. The clerk who does the posting, must sign his name. Then, two or three days later, the verifiers will go over the work again, verifying the postings and signing their names.¹

Since the control sheet carries the total of a single tax roll kept in the office of the receiver of taxes, and since the same amount of daily collections is posted both to the tax roll and the control sheet, it is evident that the balance of the control sheet drawn off at the close of each month should agree with the balance reflected by the tax roll, which is controlled by the control sheet. The balance of the tax roll is determined by listing the amounts due on the roll. Any discrepancy between the tax roll balance and the controlling balance indicates error which

¹Address on *Accounting and Auditing Control over Revenue Accruals—Creating Accounts Receivable*, by Mr. H. H. Rathyen, Auditor of Receipts, Department of Finance, delivered at the Bureau of Municipal Research, Feb. 19, 1913.

should be immediately located. The receiver of taxes should be asked to give an explanation of the difference. Furthermore, the controlling balance should also represent at all times the number of tax bills pertaining to that particular roll, which remain unpaid in the filing cabinet. Trial balances of these two subsidiary records should be taken off at least once a month and should be in accord with the controlling balance.¹ Once a month, an inspection of the unpaid tax bills in the filing cabinet should be made in order to ascertain whether or not there is a bill on hand for every open item in the tax roll.

VII. *The General Journal Entries.*—The control established over the revenue accruals creating accounts receivable can be more clearly understood, if the financial transactions we have discussed thus far, are expressed by the general journal entries. After the amounts reflected by the tax rolls are entered in registers of accruals, which I have discussed above, they form the basis for formulating a general journal entry, reading (the figures being fictitious) :

Accounts receivable, tax levy, blank, year....	\$200,000,000	
To revenues, general government.....		\$190,000,000
To reserve for loss, taxes uncollectable.		10,000,000

This entry, which establishes these accounts in the general ledger to be reflected in the general account balance sheet, has to do with the element of the operation and maintenance account which records the purposes for which the expenditures are to be made. A collateral entry should be made for the fund group of accounts. But for lack of space, this and other collateral entries for the fund group will be disregarded.

¹ *Handbook of Municipal Accounting, op. cit.*, p. 102.

The experience of New York City shows that a certain percentage of the annual tax levy proves to be uncollectable. This is a sheer loss which is traceable to cancellations, rebates, and simple inability to collect the tax. We have assumed that for the given year, New York City will provide a total budgetary appropriation of \$190,000,000, of which about \$10,000,000 is not collectable. Therefore the city will have to meet a deficit at the end of next year by resorting to loans, because the funds necessary for the operation and maintenance of the government are \$10,000,000 short. There are only two ways to supply the amount of shortage, *viz.*, the issue of bonds and the increase of the tax levy. The first is objectionable, not only because the city has to bear an unnecessary burden of interest charges, but also because the city may not be able to retire the bonds in the following year, with the result that the burden is shifted to posterity. Therefore a sound system of municipal financing requires that the probable or estimated loss due to uncollectability of certain amount of taxes, cancellations and rebates should be added to the total annual tax levy of \$190,000,000 called for by the budget. The method of setting up a reserve for the uncollectable taxes provides currently for the inadequacy of funds. Subsequently, as taxes are found to be uncollectable, or as rebates and cancellations are made, the reserve is no longer necessary. It should, therefore, be wiped out by debiting it with \$10,000,000 and crediting accounts receivable with the same. The "accounts receivable" account, after its \$10,000,000 credit item is subtracted from its \$200,000,000 debit item, will show a balance of \$190,000,000, which amount reflects the true amount collectable through the year.

At the close of each month, the register of collections or the credit cash book, in which the daily collection re-

ports from the cashier have been entered, is footed, the total being used to form the basis of a general journal entry, reading (figures being fictitious):

Cash, City Chamberlain.....	\$30,000,000	
To accounts receivable, tax levy, blank year.		\$30,000,000

This entry, which charges the chamberlain's cash account, would increase the bank balance, the unapplied (net cash) balance, which is the cash over all the immediate demands for cash, as well as the available balance which can be utilized for further needs of cash when the liabilities become due.¹

VIII. *Efficiency in the Collection of Arrears.*—The amount of uncollectable taxes has recently been reduced to the lowest possible minimum, through a change made in the legal methods of enforcing payments. Prior to 1908, the accumulation of arrearages from tax levies and water rents in the City of New York amounted to more than \$100,000,000. This enormous amount was the result of the inadequate machinery provided for collection, although the carelessness or neglect of public officers was also partly responsible for it. In addition to this, there are approximately \$30,000,000² of arrearages annually committed to the bureau for the collection of arrears and assessments. The problem of enforcing the payment of such a vast sum of back taxes and water rents is, therefore, of paramount importance. Fortunately, the legislature has made a radical change in the former provisions of law for the sale of real property in the City of New

¹ See *Memorandum Re General Ledger*, issued by the Comptroller, May 12, 1910, pp. 24, 28, 29.

² A paper read before the Eighth Annual Convention of the National Association of Comptrollers and Accounting Officers, by Comptroller Prendergast of New York City, on *Collection of Arrears of Taxes and Assessments*.

York for the collection of taxes, water rents and assessments.¹ Under the former system, taxes and assessments had to be in arrears three years, and water rents four years, before becoming subject to sale, and when sold, only arrearages that had run for at least those periods respectively were included in the charges for which the property was sold. Under the present system, the period which must run before the lien is subject to sale is unaltered; but there is this important change: not only is the lien sold for such arrears, but there are also included all subsequent liens up to the date named in the advertisement of the sale. For example, if the taxes for 1911, 1912 and 1913 remained unpaid on the last day of December, 1914, the taxes for 1911 have surely fallen in arrears, and are therefore subject to sale. But the proceeds of the sale will be used not only to liquidate the obligations of 1911, but also those of 1912 and 1913. The instrument evidencing the sale and executed by the city to the purchaser is called a "transfer of tax lien." The lien is offered to any person who is willing to bid the lowest rate of interest on the purchase of it, not exceeding 12 per cent. The city receives the principal and interest to date of sale, but guarantees the lien for principal and interest at the rate bid. This instrument of transfer is regarded as a first mortgage on the property affected and in case of default in payment of interest for thirty days or in payment of subsequent taxes for six months after the delivery of the lien, the transfer may be foreclosed.²

The result of the effort to advertise continuous sales

¹ Provisions of Chapter 490 of the Laws of 1908.

² *Statement in Relation to Law Governing Sales by the City of New York for Arrears of Taxes, Water Rents and Assessments*, issued by the Comptroller, pp. 1-2.

in all of the five boroughs during the period between 1908 and 1912, both inclusive, is reflected by the remarkable increase in the collections of arrears. For instance, prior to 1908, under the old provisions of law, the annual collections averaged approximately \$14,000,000. Since the same year, when the new law took effect, the collections have increased to approximately \$27,000,000 in 1909, \$36,767,000 in 1910, \$26,541,000 in 1911, and \$30,921,000 in 1912. This new method of enforcing the payment of back taxes has finally overcome all the difficulties encountered in the collection of the special franchise tax. The special franchise law has been contested by the public service corporations from 1900 to 1908, in order to find a pretext for non-payment of their taxes. Realizing the city's power to foreclose their franchises, they anticipated the sale arranged for in May, 1910. The gas and electric light companies liquidated their arrears amounting to over \$7,000,000 and the railroads liquidated theirs to the extent of about \$30,000,000.¹

E. CONTROL OF REVENUE ACCRUALS, COINCIDENT WITH CASH

I. *Difference between Accruals Creating Accounts Receivable and Accruals Coincident with Cash.*—So far I have discussed only the control of revenue accruals which create accounts receivable, collectible at the convenience of the payer. There is another class of accruals which do not create accounts receivable, by reason of the fact that the revenue accrues to the city coincidentally with cash. For instance, licenses and permits which repre-

¹ Paper on *Collection of Arrears of Taxes and Assessments*, *op. cit.*

² Address by H. H. Rathyn, Auditor of Receipts, New York City, on *Auditing and Accounting Control of Revenue Accruals, Coincident with Cash*, delivered at the Bureau of Municipal Research, 1913.

sent this class of revenue accruals are sold for cash at the time they are applied for. The object to be obtained through the issue of licenses, permits and privileges is to regulate certain classes of commercial activities and to prevent fraud in the conduct thereof. A charge is made as a contribution to the expense incurred in the supervision of these business interests.

II. *Control of Fixed Charges.*—Licenses are so important a source of revenue that they are now brought under what we may call “stationery financial control.” Without this control the issuing clerks might issue any form in order to pocket the proceeds, with little danger of being detected. Under the present system no issuing office of licenses can issue any form except those prepared by the comptroller and delivered to it upon requisition. To the end that the city may be protected against the use of unauthorized stationery, all forms of licenses, permits, etc., are now engraved on specially manufactured paper, each sheet of which is counted and inventoried by the manufacturer to the printer or engraver. The manufacturer is required to send a sworn statement of the quantity of paper manufactured and inventoried to the office of the commissioners of accounts as well as to the comptroller. Upon receipt of the paper, the printers are also required to deliver to the comptroller and the commissioners of accounts a sworn statement of the quantity of paper received from the manufacturers and a sworn statement of the numbers of documents of each kind delivered to the auditor of receipts, department of finance, together with a statement of the number of sheets and the weight of paper used in the preparation of forms delivered and the number of sheets and the weight of paper destroyed or consumed in the process of printing and engraving.

Upon receipt of the forms of stationery, the auditor of receipts will charge himself with the quantities and amounts represented by the stationery received by him, and upon the delivery of forms to the issuing clerk of a department, credit himself with the quantities and amounts represented by the stationery issued. A stock account is therefore established over each class of stationery received and issued, which account is audited by the commissioners of accounts.¹ When he credits himself, he at once charges the license clerk of the department sending the requisition for stationery with the same numbers and amounts. The license clerk is credited when he sends in a monthly report and renders an account current to the comptroller or his representative, the auditor of receipts, with respect to each class of license issued or to be issued. They must show:

(1) The balance of unissued licenses in his hands at the beginning of the month.

(2) The number of licenses received by him during the month as of which the report is made.

(3) The number of licenses spoiled and destroyed during the month.

(4) The number of licenses issued during the month.

(5) The balance of unissued licenses on hand at the end of the month.

(6) The total amount of fees to be charged for the licenses during the month.²

All the spoiled documents are returned with the counterfoils to the auditor of receipts who audits the latter to the former. The license clerk of any issuing depart-

¹ *General Description of the New System for Issuing, Recording and Making Return on Licenses*, issued by the Department of Finance, 1909, pp. 12-13.

² *Ibid.*

ment is credited with the number of licenses that he has spoiled and the number of licenses that he has issued and for which he has received money on the city's behalf. The balance of the stock account, after these credit entries are made, should be in agreement with the balance of the unissued licenses in his possession at the end of the month. Under this method of establishing a stationery financial control, the license clerks of the city cannot very well issue any other licenses than those which the comptroller furnishes them. This method has increased the city's revenue and has certainly exerted an uplifting influence upon the morale of the city employees.

Heretofore the comptroller was utterly in the dark as to whether or not the issuing agency was issuing renewal licenses for originals. The issuing clerk might issue a renewal to a friend of his, although his friend never had an original. Realizing the inducement to dishonesty on the part of the issuing clerks, Mr. H. H. Rathyen, the auditor of receipts, department of finance, has made a successful attempt to control all of these documents, both original and renewal, by writing up some 50,000 cards in 1912 from the documents he received from the engravers. These cards, showing whether or not they are originals, are divided into sets, there being one set for every day. After they are indexed and assorted by bureaus, they are filed in sixteen or seventeen drawers in a cabinet. Every class of license which was issued on a particular day of 1912 was checked up on a corresponding date in 1913. Upon receipt of the reports from the bureau of licenses, the items of the reports were audited to the cards to see whether or not they had issued a renewal for the original license. If there are cases where businesses are conducted with licenses which have

already expired, but have not been renewed, the city has now a means of finding them out.¹

III. *Control of Non-Fixed Charges.*—There is in use in New York City today another form of financial stationery for non-fixed charges. When the amount charged is fixed and engraved on the document, no question can arise as to the amount of receipts the collecting officer should account for, because he is charged with the numbers and amounts of documents he has received from the comptroller and credited with the numbers and amounts of those spoiled and issued. The examples of this class of stationery are the licenses which I have discussed above, tickets for tolls, market privileges, etc. But where the amount charged is dependent upon the nature of each particular application, and has to be written in each document, as in the case of permits and other forms of privileges, the control is established through the use of a graduated coupon printed on the right-hand side of the document. The amount charged is "cut" on the graduated coupon by means of an angle-rule cutter, and when it is cut, the original is detached from the counterfoil. The highest amount remaining on the coupon represents the amount charged and received.² The applicant for the document will naturally look at the highest amount and pay no more than this. Therefore the issuing clerk cannot make a profit out of the transaction, because what he receives from the applicant is exactly what the "cut" stands for.

In order to cut the original from the counterfoil by one operation, the former is folded over the latter from right to left, the stub of the latter only being bound in

¹ *Auditing and Accounting Control of Revenue Accruals, Coincident with Cash*, by Rathjen, *op. cit.*

² *Ibid.*

the book at the left. In this way, when the document is cut, the counterpart of the cut on the original will remain on the counterfoil, which is below the original. This counterfoil is forwarded with the report to the department of finance and serves as an unmistakable evidence as to the amount of cash collected. The collecting clerk cannot falsify the indentation on the counterfoil, because if he makes a second cut, he only increases the amount which he should account for. This method is adopted not only by the city, but also by the express companies and the post-office department in the issuance of money orders.¹

Under the old scheme in New York City, the original and the counterfoil were loose, as they were not on one sheet of paper. It was an easy matter to issue the original to the applicant for \$500 and then write \$400 on the counterfoil, which, when transmitted to the department of finance, would serve as a basis on which to audit the amount of money collected. A dishonest official might therefore pocket the \$100, for which he would not be required to account.

IV. *Control of Receipts.*—Most of the one hundred and sixty collecting agents in the City of New York report every day. A great many of them, like the court clerks, daily collect a large amount of money, which is deposited in the bank to their own credit. At the end of the month, they turn in their money to the chamberlain by transferring the bank credit to him. Prior to 1911, the comptroller had no knowledge whatever of the total amount of collections deposited with the different banks, until he was notified of the receipt of money by the chamberlain in the following month. As these col-

¹ *Handbook of Municipal Accounting*, pp. 95-6. See also *Short Talks*, No 7, Bureau of Municipal Research.

lections are revenue accruals coincident with cash, they are a valuable asset to the city. But the comptroller had not the slightest idea about these assets.¹ This defect in municipal accounting was remedied by requiring the collecting officials to transmit a daily report to the comptroller, setting forth the amount of collections by classes, the report being merely a copy of the total of their cash books. The auditor of receipts keeps in his office an index on the stubs of the departments assuming the duties of collecting agents. When the reports come in every day, they are checked up with the index to see if all of the departments have reported. If some have not, they are requested to do so by telephone.

Upon receipt of these reports, the accruals clerk in the office of the auditor of receipts makes all the necessary entries in the revenue journal which is a register of accruals. This journal is used as a basis for the making of reports to the general ledger clerk, to be posted to the general ledger through the general journal entry, reading:

“Revenues receivable, other than taxes,
To revenues, classified, for permits, licenses,
tickets and receipts for payments which
have to do with revenues coincident
with cash collections.”

It should be noted that mere illustrative entries are given here, and that in actual practice, the entries will be classified in detail. When the daily report of collections which is prepared by the cashier of the collecting department to furnish information to the chamberlain, is taken to the bank designated by the banking commission

¹ See *New York City's Department of Finance*, submitted by Bureau of Municipal Research, pp. 40-42.

as the city's depository, it is accompanied by the amount of cash collected. The receiving teller of the bank will certify in the space provided in the report that the sum deposited for the day is in agreement with that reflected by the report, which is then forwarded to the chamberlain for his information. The latter will abstract the figures necessary for his own entries and sign his name in the space provided in the report which has now become his receipt voucher. He will issue a receipt to the cashier and transmit the receipt voucher to the comptroller or his representative, the auditor of receipts, as an evidence that the money has been deposited to his credit. The auditor of receipts, after audit, will make daily entries in the cash-book journal charging cash and crediting the different "revenue receivable" accounts. The sum of the various columns of the cash-book journal will be reported to the general ledger clerk and used as a basis for formulating a general journal entry, reading:

"Cash, city treasury,

To revenue receivable, other than taxes,
current year, classified."

From the above it is clear that the general ledger clerk will charge the "revenue receivable" account with the amount of accruals reported to him by the auditor of receipts and credit it with the amount of cash collected and turned in as reported to him by the latter. The difference between the debit and the credit of this account indicates the amount still due from the collecting officials. The inactivity of this difference or balance will direct the attention of the comptroller to the slow return of cash collected by the collecting agents. The possi-

¹Address on *Control of Revenue, Coincident with Cash*, by Mr. James, Auditor of the Water Department, delivered at New York University, 1913-14.

bility of making slow returns is, however, avoided by a rule that no collecting official in New York City can obtain his monthly salary unless he shows the auditor of receipts the chamberlain's receipt, which evidences that he has made a deposit of the money he has collected during the previous month. The paymaster will not pay him his monthly salary except upon certification by the auditor of receipts that he "has filed the return of moneys collected by him" during the previous month.¹

The total amount of accruals reported as collected in 1912, of which the comptroller had no knowledge whatever prior to 1911, amounted to over \$25,000,000. The sum that the collecting officials did not turn in on Jan. 1, 1913, was only \$145,000, which sum was still left in the bank to the credit of their own accounts. This clearly shows that the city's revenues other than those from tax levy are now brought under efficient accounting control.²

¹ Rathyen, *Auditing and Accounting Control of Revenue Accruals, Coincident with Cash, op. cit.*

² *Ibid.*

CHAPTER X

CONTROL OF WATER REVENUE UNDER THE NEW SYSTEM OF ACCOUNTING

A. THE FRONTAGE RATE AND THE METER RATE

WATER is now supplied as a prime necessary to the people of most cities at a stated price. Experience shows that cities which do not operate waterworks and must therefore depend upon private water companies or upon the use of wells and springs for their supply of water, are subject to epidemics. New York City furnishes pure water to its people through the operation of a municipal water plant, acquired through the issuance of long-term bonds or corporate stock, and charges adequate prices for the use of such water. Leaving out of consideration for the present the charges for water used for miscellaneous purposes, two rates are now charged for city water: the frontage rate and the meter rate. The frontage rate is an annual charge, based upon the front width of a building, the number of stories, and the number of fixtures contained therein. For instance, the annual frontage rate for a one-story building, wholly or partly unmetered, with a front width of not more than sixteen feet, is \$4.00. If the front width is between sixteen and eighteen feet, a rate of \$5.00 is charged. The rate varies not only with the front width, but also with the number of stories. For each additional story, one dollar per annum is added. The regular frontage rate is based on the assumption that only one family will occupy the prem-

ises; for each additional family, or apartment, one dollar per annum is charged. In addition to the regular frontage rates extra and miscellaneous charges are made against unmetered premises. Thus for baths three dollars per annum each are charged; for water closets and urinals of every description, two dollars each per annum; one bath and one water closet in each house being permitted, however, without additional charge.¹

The meter-rate charge is based on the actual consumption as shown by the meter measurement. Upon the authority of an ordinance,² the commissioner of water supply, gas and electricity may, at his discretion, place water meters "for all places, workshops, hotels, manufactories, office buildings, public edifices, wharves, ferry houses, and in all places where water is furnished for business consumption, except private buildings; the charge for water measured by meter to be ten cents per 100 cubic feet." All other charges are reserved for special contracts to be approved by the commissioner of water supply, gas and electricity. Inspection of the premises where meters are installed are made by the inspectors of the bureau of water register, department of water supply, to secure the meter readings for the purpose of establishing the proper charges upon the meter-rate ledgers. Under the rules and regulations of the department, the inspectors must be given access to all parts of a building, boat or place where the water supply is measured by meter, and must be allowed to shut off the supply for the purpose of inspection.³

¹ See the Frontage Rate Bill.

² Adopted March 15, 1900, signed by the Mayor April 10, 1900.

³ See the Meter Rate Bill.

B. THE ACCOUNTING SYSTEM IN THE FRONTAGE RATE DIVISION

The frontage rate trial balances as taken off in the early days of reorganization were not in agreement with the balances shown by the control ledgers. This was due to incorrect postings of adjustments in the ledgers, failure to post all the collections, or the posting of payments to wrong ledgers, etc. All this made it difficult to bring the ledger accounts under proper accounting control.¹ Today, the entire system has been completely reconstructed. It is seldom necessary to check a ledger for its correct balance. The water department now uses the analytical method of taking ledger balances. By this method, errors are at once disclosed, if they exist, and it usually takes but a few minutes to locate them. Furthermore, after the annual frontage rates are entered in the ledgers, they are checked and the items on each folio are checked after they are totaled. Then, the folio totals are scheduled, the total for each ledger being posted to the debit side of its respective account in the Control Ledger. The daily transactions affecting each frontage rate ledger for a fiscal year are posted in total to the credit side of the Control Ledger, balances being taken at regular intervals. The trial balances drawn off from the frontage-rate ledgers are reconciled with the balances shown by the Control Ledgers.² The quarterly frontage rate revenue is based on the known revenue for the year, as established on January 1st, allowances being made at

¹ See a monograph, *Collecting Water Revenue, Methods of Bureau of Water Register, Manhattan, with Suggestions for Reorganization*, issued by the New York Bureau of Municipal Research, May, 1909, p. 31.

² Address by B. J. Looram, Accountant of the Water Department, delivered on *The Control Division of the Bureau of Water Register*, at the Bureau of Municipal Research, 1913.

the end of each quarter for additions or deductions which may have become necessary as a result of completion of new buildings or demolition of old ones.¹

The frontage rates are charged *in rem, i. e.*, against the property, not against the owner. For this reason, the frontage-rate bills cannot be mailed to the consumers, whose names are immaterial, bills being called for at the frontage-rate division by the consumers when they desire to make payments. The meter-rate bills are mailed to the consumers, by reason of the fact that their names and addresses are reported to the office by the inspectors who inspect the premises at frequent intervals. Under the new system, the frontage rates are prebilled, precisely in the same way as in the case of the tax bills. In other words, the bills are prepared at the close of the previous water year, thus making it necessary to establish the charges in the ledgers before they become due and payable. When all the annual charges are prebilled, a schedule is prepared which lists the amounts due in the consumer's ledgers in the frontage-rate division. This schedule of accounts receivable is made out in duplicate, the original being forwarded to the Control Division of the same bureau, the total of all schedules forming the basis of a journal entry in the General Journal reading:

Frontage-rate accounts receivable, year.
 To revenue, frontage rates.”

By this entry, the control division of the bureau of water register is informed at the beginning of each year of the total sum of annual charges for that year. It will be seen that in the absence of any adjustments, the amount of cash collected by the cashier during the year on the

¹ Inter-office Memorandum from the accountant in charge of the revenue division to the Auditor, Bureau of Water Register, dated March 20, 1914.

frontage-rate bills, would be equal to the total of the accounts receivable, annual charges. If the total collection falls short of this total of accounts receivable, at the end of the period in which the bills are due and payable, the amount uncollected is then considered as arrears and is turned over to the receiver of taxes for collection.

In addition to the internal control exercised by the control division over the frontage-rate division, there is an external control exercised by the department of finance. For this reason, a duplicate copy of the schedule of accounts receivable is forwarded to the auditor of receipts, department of finance, for the purpose of establishing a control over the annual charges, as entered in detail in the consumers' ledgers in the frontage-rate division.¹ The department of finance holds the water register responsible for the collection of the annual charges as entered in the consumers' ledgers and as stated in the duplicate schedule.

C. PRESENT SYSTEM OF ACCOUNTING FOR THE METER RATES

Some five or six years ago, during the reorganization of the bureau of water register, Manhattan, it was proposed to bring all of the meter-rate ledgers under control. As there were then one hundred and seventy-eight meter-rate ledgers in use, it was found impracticable to establish a control over all of them at once. Consequently, an attempt was made to control them one after the other until full control was established over all meter-rate ledgers as of January 1, 1911. Since that date three or four meter-rate ledgers have been added. There are

¹ See a lecture on, *Collecting and Controlling Water Revenue*, delivered by Mr. L. A. James, auditor Department of Water Supply, Gas and Electricity, at New York University, 1913.

now two hundred and sixteen ledgers carried in control, including the thirty-four frontage-rate ledgers. They contain approximately one hundred and fifteen thousand accounts for the borough of Manhattan alone. In every other borough, a similar control is established over the ledgers.¹

The first step in the present accounting procedure in the control of water revenue is careful and frequent inspection. All water-meter inspectors are uniformed and the adoption of an adequate system for the reading and inspection of meters has rendered the revenue-collecting function of the department more efficient. The new system of inspection allows the work to be carefully checked and recorded, while inspectors can be located at any time while on duty.² They are supervised and their work is carefully verified from day to day, and periodically tested and compared to see if the services they render have attained the maximum degree of efficiency. Approximately, half a million dollars will be added to the revenue each year, as a result of the re-examination of the city which is under way. In fact, the efficiency of the bureau of water register has been increased 25 per cent, and modern business methods and principles have been adopted in the administration of its affairs.³

For the purpose of making a full examination of a building, an inspector would visit the premises, measure the front width, count the number of stories, the number

¹ Lecture on *The Control Division of the Bureau of Water Register*, by Mr. L. A. James, Auditor of the Department of Water Supply, Gas and Electricity, at New York University, 1913-1914.

² *Annual Report of the Water Department*, 1911, p. 7.

³ See a pamphlet, *Economy and Efficiency in the Department of Water Supply, Gas and Electricity*, issued by the Water Department, 1913, pp. 8-9.

of fixtures, the number of families occupying the same, and see if there is any leak or waste of water through the fixtures, etc. He then makes a report which goes first to the frontage-rate division as a basis for adjusting the frontage-rate charges on the consumers' ledgers, if the report shows conditions different from those shown on the ledger. Then it goes to the permit division, where the information relating to leak and waste of water, etc., is abstracted in order that necessary steps may be taken to remedy such a condition. A record is kept of all the reports so that the cases may be followed to a conclusion. When a case is closed, the report goes to the meter-rate division, to be compared with the consumers' ledger account, the report being subsequently filed in the general file. In the case of a new building, the inspector's report goes first to the permit division to see if the services and meters, if any, are set in accordance with the requirements of the department. Then it is transmitted to the frontage-rate division for the opening of an account in the consumers' ledger, if unmetered, then to the meter rate division for the opening of an account, if wholly or partly metered. After this the report is transmitted to the control division,¹ where a meter-reading sheet, a form on which the meter readings are recorded, is prepared by entering the tax reference—section, block and lot—the location of the meter in the building, the index of the meter, etc. These are sent at regular intervals to the inspection division to be visited by the supervising inspector, who removes the sheets showing abnormal readings for further investigation. The sheets with normal readings are returned to the control division to be listed on the "Schedule of

¹ See an address, *Control of Water Revenue*, by L. A. James, Auditor of Water Department, at New York University, 1913-14.

Meter Readings." All the sheets pertaining to a ledger are brought together and listed on one schedule. Therefore each schedule is for one ledger, containing approximately 300 consumers' accounts in the sequence of tax reference. The schedules are then sent to the meter rate division, where the readings are posted to the meter rate ledgers, and the consumption in cubic feet is recorded. The same clerk who does the posting then prepares a meter rate bill, a full description of the particulars of the bill, such as the tax reference, the street address, the name of the person against whom the charge is made, etc., being previously recorded on the bill by means of an addressograph machine. The thing to be inserted in the bill is the consumption in cubic feet, which is reduced to dollars and cents.¹ This method saves the cost and inconvenience of writing out in full each particular bill when it is rendered to the consumer. The three accounts, the one entered in the consumers' ledger, the one appearing on the schedule, and the one inserted in the bill, are the same. They can therefore be compared to show the mathematical accuracy of all.

The consumption of water during two consecutive intervals of water inspection is ascertained in the following way. The clerk posting each reading deducts the previous reading from the present reading, in order to find the amount of water consumed for the period intervening between the two readings. After he has determined the consumption, he extends it in the ledger and inserts it in the bill. He then enters the previous reading and the consumption in their respective columns on the meter reading schedule, the date of the previous reading being noted in the "remarks column". The date of the present

¹ L. A. James, *op. cit.*

reading and that of the previous reading being given, it is an easy matter to determine the period of consumption, which is necessary in allocating the revenue to the year in which it is earned. For instance, a meter may be read, say, in September of one year and in April of the next year. In this case, an equal ratio or fifty per cent of the entire charge is applicable to each year. This distribution is made in order to determine as nearly as possible the actual revenues for each year.

After the previous reading and the consumption have been entered in their respective columns on the schedules, the schedules are returned to the control division, where the total of each column is checked and proved. This is done in the following way. The clerk in the control division, upon receipt of the schedules, ascertains that the total of the "present reading" column equals the sum of the totals of the other two columns, viz., the "previous reading" column and the "consumption" column. This reverses the action of the meter rate ledger clerk, because he finds out the consumption by deducting the previous reading from the present reading. In this way, a complete control is established over the entries made daily in the ledgers by the meter rate ledger clerk, for the simple reason that the Control Division knows that the consumption extended by him in the ledger is correct. If it is not correct, the error will be detected at once.

After the totals of each schedule have been verified, they are then summarized on the "Summary of Meter Revenue," which provides columns for the section, volume, schedule number, etc. This summary sheet is for all schedules pertaining to all ledgers for a day. In case there is more than one schedule for a single ledger in a day, the addition or total of each schedule is entered in the "Schedule Total" column, and the addition of the

schedules for a ledger in the "Volume Total" column. The volume total is then posted to the debit of the control ledger for the ledger affected. Consequently the figure in the control ledger controls all the daily transactions affecting one ledger. I have already touched upon the allocation or apportionment of the revenue to the year in which it is earned. On the "Summary of Meter Revenue," the revenue is credited to the different years. All the columns are then totaled and the totals transferred to the "Revenue Journal" for meter accounts. As the "Summary of Meter Revenue" is for all schedules pertaining to all ledgers for a day, the "Revenue Journal" is for all summaries of meter revenue pertaining to all schedules for a month. All the columns in this journal are totaled at the end of the month, and the totals are posted to the general ledger through the medium of a general journal. Consequently the figure posted to the general ledger controls all the transactions affecting all the meter rate ledgers for a month. In other words, it is the controlling figure for all the meter readings entered in the meter rate ledgers during the month.

D. ADJUSTMENTS

The above description of the procedure followed in establishing control over water revenue is almost complete, if no change need be made in the accounts. But a changeless keeping of accounts is hardly obtainable, in view of the many rebates, refunds, cancelations and corrections that must be made from time to time. When a consumer of the city water has paid his bill by check, he is credited with the amount in the departmental books. But his check may be dishonored by the bank and returned unpaid. In such a case, the credit given to him for the payment must be canceled. Again, a property using the

city water may be transferred from a frontage to a meter rate basis, thereby necessitating the billing of the frontage charges to date and the opening of a meter-rate ledger account. If the frontage-rate charge has already been paid for the portion of the year, a correction must be made. Further, in many cases, over or double payments are made and it is necessary to refund the excess to the consumers.

Control may be maintained over the physical condition of the premises by a rule of the water department requiring a report from the plumber on any changes he has made in the plumbing. By checking the reports of the plumbers against the records of the water department, the necessity for making additions and reductions will become apparent at once and a change in the charge will be made, if the plumber's reports are verified by the inspectors of the water department.

From the above it is clear that the authorities for refunds, cancellations, reductions and corrections may originate in any division of the Bureau of Water Register. The "Adjustment Authority" is a sheet issued by a division, carrying the authority for making changes in the accounts in the consumer's ledger; it must indicate the classification of the accounts receivable that are affected by the change, *e. g.*, frontage rate, meter rate, or miscellaneous. It must also show the tax reference of the property—section, block and lot—so that the account or accounts affected may be easily located. A full explanation is given of the nature of the adjustment. These authorities are then forwarded to the control division for scheduling on the "Schedule of Adjustments." They are arranged according to section, block and lot, bringing together all the items that go into one ledger before they are scheduled. After they have been sched-

uled, sub-totals are taken at the end of each group of adjustment items relating to one ledger. In other words, several groups of adjustment items affecting several ledgers may be footèd up, and the footings (footings of the debit and credit columns) are the controlling figures for the total debit and credit adjustments made in the several ledgers during the day, these totals being posted to the respective control ledger. In this way the subsidiary ledgers and the control ledger are reconciled.

The adjustment authorities concerning all subsidiary ledgers for a day, having been scheduled in the manner indicated above, are then sent to the adjustment journal clerk to journalize. He posts the items from the authorities into the "Adjustment Journals", as debits or credits. At the end of each day, he checks the total debits and the total credits for all ledgers and makes a recapitulation of these daily totals by days in order to obtain a monthly total. This monthly total, which is the controlling figure for all adjustments relating to all ledgers, is posted to the General Ledger through the medium of the General Journal. In this way, the General Ledger is brought into reconciliation with the Control Ledgers and the subsidiary ledgers.

E. THE CONTROL OF COLLECTIONS

The control over the collections of water revenue is established in the following way. When a consumer presents a meter-rate bill or applies for a frontage-rate bill, an entry is made by the entry clerk in the cashier's division on a form called the "Schedule of Collections." The bill is then passed to the cashier, who, upon receipt of the amount indicated therein, receipts the bill, detaches the stub or duplicate bill, giving the consumer the original as a receipt. At the end of the day the total of

the items shown on the stubs or duplicate bills and slip charges for permits must be equal to the total of the cash collections in the hands of the cashier. These two totals must each agree with the total as reflected in the schedule of collections prepared by the entry clerk. Here is another illustration of the usefulness of an internal check. After this, the stubs, duplicate bills, etc., are sent to the control division from the cashier's division. Here they are grouped according to the tax reference, those relating to one ledger being brought together. The amounts are then scheduled on the "Schedule of Collections" used in the control division. Separate schedules are provided for collections for the different functions, *i. e.*, frontage rate, meter rate and miscellaneous charges. Upon the completion of the schedules for all ledgers in a day, the schedule totals are summarized each day on the "Daily Summary of Collections," and the total amount of this daily summary must agree with the total amount of cash as shown in the cashier's cash book. This is a check upon the work of the cashier. The daily summaries for all days in the month are then recapitulated on the "Monthly Recapitulation of Collections." The total shown on this recapitulation can again be checked to the total of the cash book in the cashier's division.¹

The schedules of collections of the frontage-rate and meter-rate charges are forwarded to the respective divisions for the purpose of posting the amounts as credits

¹The description of the accounting procedure as given in this chapter has been certified as correct and true to fact by Mr. Hawkins, accountant in charge of the revenue division of the Bureau of Water Register. Mr. Hawkins is cognizant of every phase of the new system of accounting installed in that bureau.

to the consumers' ledger.* As has already been stated, the consumers are charged in the books at the commencement of the water year for the frontage rate and at regular intervals for the meter rates, after the readings are taken by the inspectors. Now when they have paid their bills, they should be credited in the books with the amount they have paid. Hence the forwarding of the schedules of collections to the frontage rate and meter rate divisions for the posting of the amounts to the credit side of the consumers' ledger. After the postings are completed, the schedules are returned to the control division, where the volume totals are entered on the respective frontage-rate and meter-rate control ledgers (control sheets). Incidentally a duplicate copy of the schedules of collections is prepared and forwarded to the auditor of receipts in the department of finance.

If the consumer fails to pay the bills during the current year, the water department certifies on March 1st of the year to the receiver of taxes, in the department of finance, the amount due from each taxable lot using the city water. The receiver of taxes will then add it to the tax bill of May 1st following. If it is not paid within the current tax year, he will certify the amount due for water, together with the arrears of real-estate taxes, to the collector of assessment and arrears, to whom it must thereafter be paid.²

F. THE CONTROL LEDGERS

The accounting control as described above is nothing

¹Inter-office Memorandum to the Acting Auditor of the Bureau from the accountant in charge of the water-revenue division, dated March 20, 1914.

²The Single Tax Review, Special Number, Vol. 13, No. 1, January to February, 1914, pp. 65-66.

but an internal check between the control division and the other divisions in the bureau of water register. As stated above, in addition to this internal check, there is an external one, established by the department of finance over the work of the water bureau. The water bureau reports at the end of each month to the department of finance, the conditions of each frontage-rate and each meter-rate ledger, by means of monthly summaries (frontage and meter), prepared from the monthly totals of the control-ledger sheets as stated below. Separate sheets are provided for each frontage-rate and each meter-rate ledger, containing thirty-one lines each. Each line on the sheet is for the daily totals of debits and credits posted to each subsidiary ledger. The daily totals are taken from the sub-totals of the various schedules, such as the schedule of meter readings, schedule of collections and the schedule of adjustments. At the end of each month, the daily totals are summarized at the bottom of each control sheet affecting one ledger only. This summary is made in triplicate, one copy being sent to the auditor of the water department, one retained in the control division, and one sent to the auditor of receipts in the department of finance to enable the comptroller to exercise an accounting control over the total amount of water revenue each month. The control sheet is also used to check and prove the correctness of the consumers' ledger controlled by itself, for the trial balance of the ledger as taken off at the end of each month must be in agreement with the balance shown by the respective control sheet for that ledger. If it is not, the ledger clerk is notified and the error is located. It takes only a few minutes to locate it.

It may be well here to illustrate the monthly summary

of the daily totals² entered on one control sheet, the figures in our illustration being entirely fictitious:

Summary of Debits.	Summary of Credits.
Balance—beginning of month \$30,000	Allowances \$6,700
Rates (charges) and penalties. 50,000	Cash collected. 38,000
Miscellaneous debits 4,000	Balance, end of month. 39,300
Total. \$84,000	Total \$84,000

G. DOCUMENTS TRANSMITTED TO THE DEPARTMENT OF FINANCE

In connection with the external control of water revenue, exercised by the department of finance, the bureau of water register transmits several documents to the auditor of receipts of the department of finance for the purpose of establishing a basis for audit. These documents consist of the schedule of accounts receivable from frontage rates, the daily recapitulation of the meter-reading sheets by volume totals, the schedule of adjustments and the schedule of collections in detail and the monthly summary of control sheets. They are audited as to arithmetical accuracy in the department of finance, and the figures are entered in the register of water revenue receivable and also on the control sheets kept in that department, which act as a check upon the accuracy of the consumers' ledgers in the water department. The medium of reconciliation is the monthly summary of the water-department control sheets and that of the finance department control sheets.³

¹ See the Control Sheet, either for frontage rate or for meter rate.

² See the lecture, *Collecting and Controlling Water Revenue*, delivered at New York University by Mr. L. A. James, Auditor Department of Water Supply, Gas and Electricity.

In addition to the above-mentioned documents submitted to the department of finance, the water department submits a quarterly report of revenues accrued. The figures in the report are taken from the General Control Ledger, maintained in the audit division of the bureau of water register, Manhattan. This General Control Ledger controls the General Ledgers maintained in the bureaus of water register for the five boroughs. The general bookkeeper in each bureau forwards to the auditor of receipts in Manhattan every month a copy of the general journal entries which he has made during the month. On the basis of these entries the accounts in the general control ledger are opened and, on the basis of these accounts, the quarterly revenue statements are prepared.¹

H. THE RESULT OF THE NEW SYSTEM OF ACCOUNTING

The bureau of water register was reorganized as a result of the publicity given to the 120 different findings made by the Bureau of Municipal Research, all of which are embodied in the latter's publication, *Collecting Water Revenue; Methods Employed by the Bureau of Water Register in Manhattan, with Suggestions for Reorganization*. The coöperative and supervisory relation of the Bureau of Municipal Research to the reorganization work of the bureau of water register resulted in an increase in water revenue of \$4,500,000 for the first two years. It is estimated that the increase will total at least \$2,000,000 a year in perpetuity.² Meters are now regularly read and the readings are placed on the books and billed in-

¹ See the footnote on the revenue statement for the quarter ended March 31, 1914.

² See a pamphlet, *Six Years of Municipal Research for New York City*, issued by the Bureau of Municipal Research, 1912, p. 26.

side of four days. The accounts in arrears are followed up at close, regular intervals. Accounting control has been so successfully established that errors can be detected and corrected within a short time. This means that 452 ledgers, containing over 400,000 consumers' accounts, are checked at regular intervals with respect to charges, adjustment of errors and collections.¹ The clerical methods employed by the water bureau were carefully investigated. The clerical work was equitably redistributed with a view to obtaining the maximum efficiency from each employee. As a result of this redistribution, the clerks in the meter-rate division can now handle twice as many accounts as before the time of reorganization, in spite of the fact that the meters are now more frequently read.²

Further, as a result of the installation of the new accounting system, the water revenue for 1911 increased to \$12,154,484.81. The aggregate amount of the outstanding water bonds that were issued to finance the present water system under the control of the water department was, in 1911, \$96,933,517.76. An annual four per cent interest charge on this indebtedness would be \$3,877,340.71. The appropriations of this department for all water purposes for all boroughs was for 1911, \$4,623,000. The two items of expense made up a total expenditure of \$8,500,340.71. Subtracting this total from the total income of \$12,154,484.81, the city gained a profit of \$3,654,144.10.³ It must be noted, however,

¹ *Annual Report of the Department of Water Supply, Gas and Electricity, 1910, p. 7.*

² *Annals of American Academy of Political and Social Science, 1912, Vol. 14, p. 83.* This volume contains an excellent article on "Economy and Efficiency in the Department of Water Supply, Gas and Electricity, New York City," by J. Leggett Pultz, pp. 78-85.

³ *Annual Report of the Department, 1910, p. 7.*

that the amortization charges of approximately \$1,500,000¹ on the outstanding water bonds are not included in this computation.

¹ See a typewritten report on *Present and Prospective Earnings of the Water Supply System of the City of New York*, in the Municipal Branch Library, Municipal Building, 1914.

CHAPTER XI

CONTROL OF EXPENDITURES FOR SUPPLIES, MATERIALS AND EQUIPMENT UNDER THE NEW SYSTEM OF ACCOUNTING

THIS class of expenditure originates in a bureau or division which requires some materials and supplies. It tabulates exactly what it needs, and what it thinks the cost will be, on a requisition blank which is forwarded to the head of the division, then to the head of the bureau, and finally to the deputy or acting commissioner of the department in charge of the purchase of supplies. After it has been approved by him it goes to the general bookkeeper or the auditor of the department, who must certify that there are sufficient funds available and indicate the account against which the purchase is chargeable. The important point to bear in mind is that no purchase can be authorized unless the fund out of which it is to be paid for is sufficient.¹ Then it goes to the bureau of supplies, which has been notified as to the money being there and the necessity for making the purchases as requisitioned.

A. CONTRACT AND OPEN-MARKET ORDERS

The next step the department takes is to create a contractual relation between the city and the vendors through

¹ See an address by Mr. Clowes, a senior accountant of the Bureau of Municipal Research, on *Accounting Tests*, delivered at the Bureau, April 9, 1913.

a purchasing agent. Contracts having been entered into, the purchasing agent then issues orders to the vendor.

Whenever orders are issued for services to be rendered or for supplies to be furnished, involving an expenditure of one thousand dollars or more, they must be issued as contract orders after public advertisement. Open-market orders are issued for the same purposes involving an expenditure of less than one thousand dollars.¹ The contracts made through public letting consist of those for the construction of subways, aqueducts, street paving, erection of buildings, laying of sidewalks, alterations to buildings, other public improvements, and finally the furnishing of supplies, materials and equipment. Another difference between contract orders and open-market orders is that the former are issued on the basis of a formal contract, the latter on that of an informal contract.

Every department, bureau and office is required to transmit one copy of the orders issued to the inspection division, department of finance, as a basis for inspection when the goods are delivered. It is required to accompany the same with a schedule of such orders on a special form, containing the date and number of the order, the estimated amount thereof and the distribution by funds against which the amount is to be charged. The same form is used to inform the department of finance of the orders that have been canceled. These canceled orders are entered in red ink in order to distinguish them from the rest. This step is necessary to enable the comptroller to establish currently the departmental encumbrances against the funds, for when open-market orders or contract orders have been issued by

¹ N. Y. Charter, Section 419.

² Circular No. 17, relative to *Open-Market Orders, Invoices, Voucher Schedules, and Monthly Statements.*

a department, chargeable against certain appropriation or corporate stock funds, they become an encumbrance on them.

The city has now incurred a contingent liability arising from the issue of open-market orders and the letting of contracts. This contingent liability will become an actual liability when the contractors and the vendors have fulfilled the requirements of the contracts and open-market orders, which constitute a real encumbrance on the appropriation or other fund account. In order that the real situation of each fund account may be clearly and properly shown, the total amount of the contingent liability from contracts let and open-market orders issued should be reserved from the appropriation or other funds in order to control and guard against over-expenditures. This is done by creating reserves on the basis of the totals of the register of contracts, and the register of open-market orders transmitted by the departments. The purpose of the two registers is two-fold: (1) "To provide a complete record and numerical index to files of orders issued; (2) to establish totals of estimated or actual amounts by means of which the accuracy of postings to reserves set up against appropriation or other fund accounts . . . may be proved."¹ The journal entry to set up the reserves against the funds reads:

Unencumbered balances of authorizations to incur liabilities,

To reserve for contracts

To reserve for open-market orders

The significance of this entry is that the appropriations or other funds, *i. e.*, the sum of the authorizations to incur liabilities, is reduced by the amount of the reserves

¹ *Manual of Accounting*, p. 56.

for the contracts awarded and let, and for the open-market orders issued. Since the departments are explicitly forbidden to exceed the authorized expenditures, any attempted over-expenditure can be easily detected and prevented. The reserves, on the other hand, strengthen the credit of the city by protecting the contractors and vendors against any possible failure to obtain payment, and at the same time represents the amount of contingent liability the city has incurred against the appropriations or other funds. This contingent liability will be reduced when goods are delivered or services performed, and the actual liability be set up in its place.

B. THE INVOICES

The business transactions reach the invoice stage when the contractor or vendor delivers a part of the commodities ordered or renders a part of his services. All goods delivered are billed at agreed prices, including delivery charges to the point of delivery. Each delivery must be accompanied by invoices in quadruplicate or the goods will not be received. If at any time it is necessary to use goods which have been delivered without invoices, the person receiving the goods is required to make out memorandum invoices in quadruplicate and state thereon the emergency which caused such action to be taken.¹

As stated above, upon the issue of an open-market order by an outside department to a vendor, a copy of it is filed with the division of inspection, department of finance. It must show prices, either actual or estimated, and must contain a full and clear description of the article or items so that the inspectors will be enabled to

¹This is specifically stated in the contract and open-market orders issued.

verify the prices by means of price lists or otherwise. When the goods are delivered and accompanied by invoices in quadruplicate, one copy is forwarded to the division of inspection, advising it that the goods have been delivered. One copy will be attached to the voucher transmitted to the comptroller for payment; one copy will be attached to the duplicate voucher filed in the central office for future reference, and the fourth copy may be used for the information of the purchasing agent or for any other purpose desired.¹

The purchasing department is required to furnish the department of finance with a schedule of invoices registered as soon as practicable after their receipt and always prior to the transmission of the vouchers drawn in payment of their amounts. This is necessary to enable the comptroller to register the actual liabilities as they are incurred.² Upon the rendering of invoices, actual liability must be established, and as the actual liability is established, the contingent liability must be proportionately reduced. But the goods delivered have not yet been inspected and may be rejected by the city. For this reason the uncertified invoices do not represent as true a claim against the city as an audited, vouchered claim. The journal entry necessary to show the situation reads:

Departmental expenditures (undistributed)

To invoices (uncertified) payable

The debit entry, *i. e.*, the account "departmental expenditures (undistributed)" is a controlling account over the detailed expenditure accounts kept by the various departments. In the departments, invoices that come in dur-

¹ See circular No. 3 in respect to orders issued by the Department of Finance, Feb. 26, 1909.

² Circular No. 17.

ing the month are registered in a register of invoices. From the register of invoices, which provides four or more columns for stores, expenses, construction, property, etc., they make a journal entry reading :

Stores
Expenses
Construction
Property
etc.

To Invoices payable.

The total of each of the four or more columns is debited and "Invoices Payable" is credited. By the above debits, four or more individual or distributed departmental expenditure accounts are opened¹ in the departmental books, all of which are, however, controlled by the controlling account "departmental expenditures (undistributed)" kept in the general ledger in the department of finance.

This controlling account "departmental expenditures (undistributed)" will be subsequently cleared when the various departments submit reports of distributed expenditures, at which time "departmental expenditure (undistributed)" will be credited with their totals and properly classified expense accounts will be charged. It is important to note, however, that the journal entry "departmental expenditure (undistributed)" to "invoice payable" has not yet been made in the department of finance. Preparation is now being made for setting up the "invoice payable" account in the general ledger, and when it is set up, the plan I have just explained will be followed.

¹ See an address on *Registration and Scheduling Expenditure Documents as a Basis for Accounting Control—Use of Departmental Ledgers*, by S. L. Bergen, delivered at the Bureau of Municipal Research, March 12, 1913.

C. THE INSPECTION OF GOODS DELIVERED

The inspection division of the department of finance, having been notified of the delivery of goods, next details an inspector to make the necessary examination of the goods. The source of the authority of the comptroller to inspect is found in the Charter, which provides: "No claim against the city for services rendered, for work done or for supplies furnished, shall be paid unless the auditor of accounts shall certify that the charges therefor are just and reasonable."¹

The city is not bound by any open-market order issued by any department to pay the amount stipulated therein if it is found by the comptroller or his auditor of accounts that the amount so set up in the contract or open-market order is in excess of the market value of the supplies or materials furnished.²

Again supplies are examined by the inspectors of the department of finance at the points of delivery to ascertain whether or not they agree with the contract specifications. For instance, the specifications for milk, condensed milk, cream and butter will provide:

- (1) That the milk and cream delivered must be produced from cows known to be healthy;
- (2) That persons employed in the barns must be free from contagious diseases;
- (3) That the milk must be received in pails which are clean, and must be cooled within two hours after milking to below 50 degrees Fahrenheit, etc.³

If the supplies do not conform with these specifica-

¹ Section 149, Greater New York Charter.

² *Ibid.*

³ See a circular from the Secretary of the Board of Estimate to the various departments, dated Oct. 17, 1912, transmitting the specifications.

tions, recommendation is made to the head of the department that they be rejected. If he disregards this recommendation, the comptroller has the power to refuse the payment of the bill when presented. Take the purchase of horses as an illustration. There is not a horse bought by the City of New York that is not examined by the veterinarian employed by the department of finance. Of the 944 horses examined during 1912, 710 were accepted and 234 were rejected on the ground that they did not conform to the specifications. On the final examination of the 710 horses accepted, 80 were found to be unsatisfactory and were rejected, thus raising the total number of horses rejected to 314.¹

It must be borne in mind that the inspection division does not lay down any standard specifications of its own. Its function is merely to see whether or not the supplies furnished or the services rendered are exactly what the specifications adopted by the committee on standardization of supplies call for. It should also be noted that nearly all the departments, particularly the large ones, have their own inspection systems. It has been the aim of the department of finance to work in coöperation with them. If the storekeeper of a certain department and the inspector of the department of finance can go and examine a bill of goods at the same time, a great deal of friction, as it exists at the present time, will be avoided. It will, at least, avoid the trouble of carrying on a long correspondence.

D. THE VOUCHERS

As stated above, invoices are received in quadruplicate. One copy is used in the division or department receiving

¹ See address by James J. Munro, Chief of the Inspection Division, Department of Finance, on *The Inspection Division*, delivered at the Bureau of Municipal Research, May 7, 1913.

the goods in checking up the prices, quality and quantity, etc., of the supplies ordered. Upon the certification by a responsible person as to the delivery, prices, etc., and upon the proof of clerical and mathematical accuracy by verification of the calculations, extensions, etc., this copy is then used as a basis for a voucher which is prepared in duplicate. A voucher may be defined to be a document officially approved, setting forth an amount due by the city and the funds out of which it is payable, having attached to it the invoice or other evidence to support the claim. It may thus cover one or more invoices.

There are four classes of vouchers containing certificates to be signed by persons cognizant of the facts, as follows:

1. Payment vouchers, contract (supplies), A, B, C, D, E.
2. Payment vouchers, open market order, A, B, C, D.
3. Payment vouchers, miscellaneous, A, B, C, D, E.
4. Pay-roll vouchers, A, B, C, D.¹

Each of these four classes is divided into four or five subdivisions, *vis.*: A. vouchers which are to be charged against appropriations; B. vouchers which are to be charged against special revenue bond funds; C. vouchers chargeable against corporate stock and assessment funds; D. vouchers chargeable against the special funds, and E. vouchers chargeable against the trust funds.²

In order to list all the vouchers, schedules of vouchers will then be prepared in duplicate. The original copies of the voucher schedules, supported by original vouchers

¹ Circular No. 12, *Relative to Payment of Vouchers Issued by the Comptroller*, March 21, 1910.

² See Circular No. 8, *Relative to Classification of Vouchers by Funds*, issued by the Comptroller, April 30, 1909.

and the certified duplicate copies of the invoices covered, will be forwarded to the department of finance.¹ The duplicates of the schedules and vouchers, etc., will be used by the purchasing department as a basis for entry in the separate expenditure accounts kept there.

Upon receipt by the department of finance of the voucher schedules, vouchers and supporting papers transmitted by the departments, they are cursorily inspected by the receiving clerk to ascertain whether or not they are properly executed. If they are not, they are refused acceptance and returned to the department transmitting them for proper execution. For instance, if the supporting papers which should accompany vouchers are lacking, such as invoices and copies of orders in the case of open-market order vouchers, or if the contract vouchers lack the requisite contract numbers, they are not accepted.² If they are properly executed, they are passed along to the register of voucher schedules to be registered.

Under the conditions existing some years ago, the method of handling the vouchers and the voucher schedules was too cumbersome. When the schedules and vouchers came into the bureau of audit of the department of finance, they were checked and registered, and particular numbers were given to them. The vouchers were then taken by the bookkeepers, who posted the vouchers in the different fund accounts. As one schedule might contain, and often did contain, entries against a dozen different fund accounts, it was necessary for a clerk to take a bundle of vouchers and to go from one book to

¹ See an address on *Invoice, Voucher, and Warrant Control*, delivered by a senior accountant of the Bureau of Municipal Research, 1913-14, at New York University.

² See a pamphlet on *The Procedure Governing the Registration and Audit of Vouchers*, issued by the Comptroller, Sept. 1, 1910, pp. 1-5.

another to make his postings, with the result that two or three clerks with different schedules of vouchers were waiting to make a posting in the same book. The means of proof, like the collating slip, was then written by hand and took the entire time of one man. The mechanical device which was put into operation to do away with this cumbersome way of posting is the "posting slip," which serves as a substitute for the voucher. The posting is now done from the "posting slip" in order that the vouchers themselves may be released for the other steps to be taken in the bureau of audit.

The way in which the posting slips are made is by having a typist copy the voucher on three slips when the voucher schedule accompanied by the vouchers comes in. When these are finished, the schedule is given to another operator, who, by use of a typewriter, takes off a proof of the schedule. He also writes a collating slip by the same operation, so that when the schedule passes through the hands of the two operators, the three posting slips, the collating slips and the proof of the schedule are all made practically at the same time.

Two of these posting slips are used by the clerks in posting the vouchers to the fund ledger and contract ledger if they are contract vouchers, and to the fund ledger and claimants' ledger if they are open-market order vouchers. Under the old process, as stated above, four or five clerks would gather together, each having a bundle of vouchers in his hands and each endeavoring to get to the books to make the postings. Under the present process one clerk has forty or fifty posting slips assigned to him, and stands at his ledger to post from these slips, those slips relating to the ledger assigned to him being already brought together for him. This new process reduces the time for the passage of the voucher

through the bureau of audit by fully twenty-four hours, increases the efficiency of postings and the orderliness of the office, and reduces the working force by about six men.¹

The three posting slips are prepared by one operator, whereas the collating slips, which are used in proving the accuracy of the postings into the ledgers from the posting slips, are prepared by another, so that an error made by one cannot be copied by the other.

E. THE TICKLER

The department of finance provides a separate book called a tickler for vouchers, and at the same time keeps a record of the time when they are delivered to other persons, through whose hands the vouchers must pass, and when they are forwarded by them. For instance, when the tickler clerk receives the posting slip from the registrar, he will indicate the date of receipt by a date stamp. He will note the date and hour of the delivery of vouchers to the bureau of audit or inspection division in the proper space provided on the tickler. Upon notice of advancement, he will again note the date and hour of delivery on the tickler. In this way it is easy to trace the movements of the vouchers and to ascertain when they are delivered and forwarded, thereby enabling the comptroller to find out the cause of delay and the reason for a detention in case the vouchers are withheld. It should be noted that the duty of the tickler clerk is not to deliver and forward the vouchers and schedules in person, but to keep a record of the date and hour of their delivery, upon receipt of due notice.

¹See an address on *Accounting Tests*, by Mr. Hervey, the chief auditor of the Department of Finance, delivered at the Bureau of Municipal Research, March 19, 1913.

It is necessary to send the vouchers to the lien clerk for examination in order to ascertain if any notices of lien or other encumbrances have been filed against the claims. In case such notice has been filed, they are withheld.¹

Notwithstanding this ingenious device, it was found very difficult to trace the movement of vouchers in the department of finance, the reason being that under the old process there were in use four sets of tickler numbers, A, B, C and D, representing the four funds out of which the voucher was to be paid. Accordingly, there were four sets of numbers to be followed up, four sets of filing numbers in the record room and four sets of numbers all through the office, thus making the process very complex. It would take a whole day for a man to make even a beginning toward getting control of the vouchers. Consequently, a simple plan of having only one set of tickler numbers was adopted. Under this plan a very simple form of tickler is set up, which gives the comptroller a control over the movement of the vouchers from the time they come into the bureau of audit to the time they are ready for payment. Every voucher can now be traced through all the branches and divisions of the bureau at any hour of the day. If any voucher is delayed for three or four days, the tickler will tell where it is, and it is an easy matter to make a special investigation into the case.²

F. VOUCHERS IN THE INSPECTION DIVISION

Some of the vouchers are sent to the inspection division and some are not. Those that are sent are charged

¹ *Procedure Governing the Registration and Auditing of Vouchers.*

² See an address by Mr. Hervey, the chief auditor of the Department of Finance, on *Accounting Tests.*

to inspection on the tickler and credited to it when forwarded to the bureau of audit. As vouchers are transmitted to the inspection division, the person who made the inspection and report on the supplies, materials or repairs forming the subject of the claim presented must make sure that the quantity of the articles delivered is correct and that their quality and character are in conformity with specifications and trade descriptions contained in the contract (or order) and invoice as determined by personal inspection. After the inspector has certified as to the quality and quantity of the articles, they are delivered to the inspectors in charge of the price record who will examine and certify as to the reasonableness of the prices charged and in case of contracts, as to the prices being in accordance therewith. If some vouchers require an examination by the engineering division, they are referred to the engineers, accompanied by the contracts to which they relate. The engineers who made the inspection will then certify as to the quantity and quality of the work done.¹

The inspectors are not allowed to hold any vouchers for more than three days without giving the reason for so doing. Instances are many where the inspectors find it very difficult to certify to a claim in their possession. Consequently they are required to fill out a notice of "Vouchers Withheld," giving the reasons for withholding them. As stated above, the prices charged for supplies delivered are often found to be excessive and the inspectors feel obliged to report adversely to the division chief, citing the particulars of each case. Very often these adverse reports are made out before the vouchers are forwarded to the inspection division, because the pre-

¹ *Procedure Governing the Registration and Audit of Vouchers*, pp. 13-15.

inspection plan adopted by the inspection division enables the inspectors to pass upon the prices charged before the voucher is actually presented to the department of finance for payment.¹ We assume that all vouchers are favorably verified by the inspection division and returned to the auditing division.

**G. THE DIRECT LIABILITY REPRESENTED BY THE
UNAUDITED VOUCHERS**

The amount of the claim against the city up to this point, as shown above, is recorded in the "Invoices (Uncertified) Payable Account." The direct liability has now reached the stage of unaudited vouchers which indicate that the claim against the city is now better established. The proper journal entry to present the correct financial situation in the general ledger, will be:

Invoices (uncertified) payable.

To vouchers (unaudited) payable.

Thus far, we have set up two journal entries, one of which is to record the direct liability represented by the invoices and the other, the direct liability represented by the vouchers. In order to make a better presentation of the case, I will repeat these two entries as follows:

First Entry.

Departmental expenditures (undistributed).

To invoices payable (uncertified).

Second Entry.

Invoices payable (uncertified).

To vouchers payable (unaudited).

As stated above, the department of finance has not yet set up the "Invoice payable (uncertified)" account. Therefore, that department makes only one journal entry,

¹See Mr. Munro's address on *The Inspection Division*.

debiting the departmental expenditures and crediting vouchers payable, as follows :

Departmental expenditures (undistributed).

To vouchers payable (unaudited).

By this single entry, as is apparent, no heed is paid to the liability of the city as represented by the invoices. As the departmental expenditures are incurred when the invoices are rendered, and as the vouchers covering the invoices may come in considerably later than the invoices, it is very essential to set up the "Invoice payable (uncertified)" account in order to record the liability prior to the transmission of vouchers by the department. By reason of the omission of this account from the general ledger, the comptroller's office fails to show the correct financial position of the city at the time when invoices have come in but vouchers have not.

It is important to call the reader's attention to the fact that the above-mentioned accounts are all controlling accounts in the general ledger. There are, of course, separate accounts in the subsidiary ledgers. For instance, after the receipt of the vouchers, they are individually posted from the posting slips to the separate accounts in the appropriation ledgers, if they are all marked "A," *i. e.*, if they are chargeable against appropriations. This shows that the fund in each appropriation account is burdened with, or rather reduced by, the amount of unaudited vouchers entered therein, just as the total amount of appropriation fund for the city is burdened with, or reduced by the total amount of all unaudited vouchers that have come into the department of finance. Therefore the "Vouchers (unaudited) payable" account in the general ledger is a controlling account for all unpaid vouchers entered in the individual accounts in the subsidiary ledgers. Its balance should

be equal to the total of all balances in separate accounts, if they are taken at the same time.

Bearing this in mind and remembering that we are speaking only of the controlling accounts, we shall now return to the journal entry referred to above, reading:

Invoices (uncertified) payable.

To vouchers (unaudited) payable.

The "Invoices (uncertified) payable" account, which we assume to have been set up in the general ledger has now been reduced by the amount of the certified invoices for which vouchers have been transmitted. Its balance would therefore represent the amount of invoices which are still uncertified and for which no vouchers have been transmitted. It would be brought to the attention of the financial officer at regular intervals, and if the delay in certifying and vouchering is abnormal, he would order an inquiry to be made.

The account, "Vouchers (unaudited) payable," now takes the place of the certified and vouchered invoices which have been reduced from the account, "Invoices (uncertified) payable," and represent a portion of the direct liability.

Up to this point, the goods ordered have been received and vouchers to liquidate or to pay the invoices have been prepared and forwarded to the department of finance. Therefore, in the fund group of accounts, the portion of the reserves set up against the appropriations or unencumbered balances to incur liabilities, and to take care of the contingent liabilities which resulted from the letting of contracts and the issue of open-market orders, may now be considered as applied. Therefore, in the fund group of accounts, the appropriation funds and the reserves should be reduced, on the theory that the vouchers prepared in payment of the liabilities diminish the

funds available for use and that if a portion of the direct liabilities is liquidated or paid by vouchers, an equal portion of the reserves is rendered unnecessary and should therefore be deducted.

The journal entry for the proper presentation of the condition in the fund group of accounts reads as follows:

Reserve for contracts.
Reserve for open-market orders.
To unapplied (net cash) balance.

The figures will be, of course, the totals of the voucher register.²

It is well to spend a few minutes here to discuss the situation in the accounts as brought about by the above entry. The accounts in the general ledger, "Reserve for contracts" and "Reserve for open-market orders" will control the balances of reserves in the detailed appropriation, contract and claimant ledgers, which in turn, reflect the amount of the contracts entered into and the orders issued.

If goods have not been delivered and invoices have not been sent in and consequently vouchers have not been transmitted, no portion of the reserves set up can be considered as applied. Therefore, the inactivity of the reserve accounts will direct the attention of the comptroller to the abnormal delay in delivering goods and rendering invoices.

H. VOUCHERS IN THE AUDITING DIVISION

Up to this point we have explained how goods are delivered with invoices in quadruplicate and how vouchers are prepared, scheduled and forwarded to the department of finance and certified by the inspection division.

² See address on *Invoice, Voucher and Warrant Control*.

However, they have still to be audited by the auditing division before warrants can be drawn in payment of the claims. The auditing division has already received the following documents which form the basis of auditing:

1. The report of inspection submitted by the inspection division.

2. The original invoice transmitted directly to the department of finance when goods are delivered where, with the contract order, it formed the basis for inspection.

3. The voucher transmitted by the purchasing department and supported by a certified copy of invoice.

Upon the assumption that the report of the inspection or the engineering division is favorable, the deputy chief auditor will then deliver the vouchers to the auditors, except those which are assigned to examiners for certification as to mathematical accuracy. The vouchers in the hands of examiners will be delivered to the auditors for audit, after they are examined. Each invoice attached to the voucher will be examined in detail, the mathematical accuracy of all calculations and extensions proved and all footings verified, with the exception of those which have already been proved by the examiners. The next step to be taken is to check and prove the total amount of invoices thus checked and proved to the total amount as shown on the face of the voucher.¹

The benefit derived from the audit of vouchers must be considered enormous, as the following figures will sufficiently demonstrate. The volume of business of New York City has grown so rapidly that during the six months from January 1st to June 30, 1913, there were \$370,409,309 of vouchers registered. There were \$6,176,546 of vouchers registered in 1912 but audited in 1913.

¹ *Procedure Governing the Registration and Audit of Vouchers*, pp. 15-18.

The total of these two amounts was reduced by cancellations and adjustments to the extent of \$3,283,520. In other words, the audit of vouchers and pay rolls transmitted from the outside departments to the department of finance resulted in reduction adjustments representing the sum-total of \$3,283,520.¹

I. THE DRAWING, SCHEDULING, SIGNING AND DISBURSING OF WARRANTS

Under the old process of the new accounting system, the warrants were drawn by hand. The amount of the claim, the name of the payee, and the number of the account were all transcribed by hand on the face of the warrant from the face of the voucher. After the voucher had been audited as described above, the voucher number, the amount and the account as written on the face of the warrant were then checked and verified with the voucher number, amount and account, as shown on the back of the voucher.² Then the audited vouchers accompanied by the warrants were delivered to the warrant-schedule clerk, who had them assorted, numbered and scheduled.³ The warrants were then checked to the schedules of warrants and the totals were proved. If there was no error, the warrants and vouchers were sent to the clerk in charge of the records of expenditure who would distribute the warrants to the entry clerks to be posted to the records.

The schedules were sent to the registrar of warrant schedules. The registrar would register the schedules

¹ *Semi-annual Financial Summary of the City of New York*, issued by the Comptroller, June 30, 1913, p. viii.

² *Procedure Governing Registration and Audit of Vouchers*.

³ *Manual of Accounting and Business Procedure, City of New York*, p. 264.

in toto by funds and prepare a daily summary of them. He would prepare collating tickets from the schedules, itemizing each account moving, and summarize them by funds, proving them by the daily summary. If the proof was correct, the tickets and the summary were then sent to the clerk in charge of the records of expenditures for the purpose of checking and proving the postings that had been made from the warrants to the records of expenditures. After the warrants were entered in the records, they, together with the vouchers and schedules, were transmitted for signature in the manner prescribed in the manual. Upon their return, they were delivered to the lien clerk again for final examination, in order to ascertain if there was any lien filed against the claim. If there was none, they were sent to the disbursing clerk, who detached the warrants, delivered or mailed them to the payees and sent the vouchers to the record room.¹

Very recently a new device has been installed which is a typewriting machine so constructed that it will write by one operation the warrant, the warrant schedule, and a collating or report slip which is placed behind the warrant. Under the old process it took five or six men to write the warrants; there were two typewriting operators writing the warrant schedules, a man supervising them and another man helping them. The warrant, the warrant schedule and the collating slip are now written at the same time. The warrant schedule, which was under the old process made out separately from the warrant, is made now a medium of posting to the contract and claimants' ledgers. This is as good as the warrants themselves because it is made out at the same time and by the same operator as the warrants. This relieves the

¹ *Procedure Governing the Registration and Audit of Vouchers*, pp. 15-18.

warrants for other use. To-day they are used as a medium of posting to the fund ledgers. The collating slip or report slip above referred to is used as a basis of the daily report of the Comptroller, which is published in the City Record on the day following each working day, containing all the warrants ready for payment on the previous day in the office. A report is also made of the vouchers, which have been received by the department of finance each day, so that any claimant against the city or any person interested in city expenditure has in these daily reports a complete record of the vouchers received and warrants drawn, the name of the claimant, the date of invoice, the tickler number and the date the voucher was received in the department of finance in each case. All this is a basis for making his inquiry. If the voucher is shown to have been received on a given day and if the claimant wants to know all about it, he has at his disposal the tickler number as the basis of his inquiry.

The daily report, which under the old process required the time of probably three or four clerks, is made now merely as a by-product, as shown above. The basis of the report on the vouchers received is obtained from the posting slip referred to in a preceding section, which, after the postings have been made, have ceased to have any use. About three hundred dollars' worth of clerical service a year is sufficient to collect these slips and transmit them to the printer. Under the old process it cost the city a much larger amount to prepare this report for the benefit of the vendors.

Of course, after the warrant schedules are prepared, they are still sent to the registrar of warrant schedules. He will register them *in toto* by funds and prepare a daily summary of them. He will also prepare collating tickets and prove them to the daily summary.

To record in the general ledger the drawing and transmission of the warrants to the chamberlain for payment, a journal entry is made by the general bookkeeper's office of the department of finance, reading:

Vouchers (unaudited) payable
To warrants payable.

The significance of this entry is that the "Vouchers (unaudited) payable" account has been reduced by the sum of the vouchers which have been audited and for which warrants have been prepared. Its balance, therefore, would represent the number of vouchers still unaudited for which warrants have not been prepared. Delay in the audit of vouchers and drawing of warrants by the auditing division would be disclosed to the comptroller by the inactivity in the "vouchers (unaudited) payable" account.

The account, "warrants payable," marks the final stage of the direct liability. It will be cleared when actual payment is made. The warrants are then sent to the mayor and the comptroller for signatures. In the meanwhile checks which are upon and made a part of the warrants are signed by the chamberlain. The signed warrants, with the signed checks attached thereto, are next detached from the vouchers and supporting papers, the items being checked off on the schedules as detached. If the checks and the warrants are found to agree, the total of the warrant schedule will be registered in a "Register of Warrant Schedules." The signed warrants and checks will then be sent to the payees or held for them, as the case may be, while the vouchers and supporting papers will be filed. The total of the "Register of Warrant Schedules" will then furnish the basis for the general entry, reading:

Warrants payable
To cash.

The significance of the "warrants payable" account is that the comptroller exercises a control over the fund and appropriation accounts kept by the chamberlain, to which the warrants are charged, because this account is based on the register of the schedules of warrants received from the chamberlain. Therefore, the comptroller knows exactly how many warrants have been charged to the various fund and appropriation accounts maintained by the chamberlain. By means of the "cash" account, a control is likewise exercised by the comptroller over the amount of cash paid by the chamberlain, *i. e.*, over the credit entry in the latter's cash-book.

This entry—warrants payable to cash—closes the cycle of transactions, which consists of five stages, *vis.*, (1) the contract or open-market order stage, (2) the invoice stage, (3) the voucher stage, (4) the warrant stage, and (5) the check or payment-of-cash stage.¹

J. THE PROMPT PAYMENT OF CLAIMS

Under the old system of settling claims against the city, it was a common practice for the city employees to expedite payments to a contractor or claimant who had political influence or who was willing to reward them for earlier payment. It is a matter of common knowledge that vendors who could sell to the city under the most reasonable terms were unwilling to enter into contractual relations with the city on account of the uncertainty of the date of payment and their unwillingness to resort to underhanded means of expediting the payments. The inevitable result was that the city paid excessive prices. The delays in the comptroller's office happened mostly in the bureau of audit.²

¹ *Invoice, Voucher and Warrant Control.*

² *Report of the Committee on Finance and Currency of the Chamber of Commerce, State of New York, on Accounting Reform of New York City, adopted June 3, 1909, pp. 18-19.*

If the city wishes the taxpayers to make quick payment of taxes, it should also be careful to avoid unnecessary delay in liquidating its obligations towards others. A government should protect its credit just as a private individual does, and one of the best means of protecting or improving it is to be as prompt as practicable in the payment of its own bills. To accomplish this end, the present comptroller has devised an ingenious scheme by which the old evil practice of "making arrangements" has been eliminated. This scheme consists of placing every voucher transmitted to the department of finance on a schedule, which must be recognized all the way through during the entire audit. It would be a violation of the rules to pay a voucher out of its order. In case it is necessary to do so, the reasons must be stated and the sanction of the comptroller or his deputy must be secured. But this sanction is seldom requested. The result is that the payment of bills is now made on an average within three days, instead of within from twenty to thirty days as was generally the case under the old system. This, of course, refers to accounts involving no dispute, which represent ninety-five per cent of the accounts passing through the department of finance.

When we say that the payment of bills requires now three days, we refer to the time consumed in passing the vouchers through the different divisions in the bureau of audit, department of finance. We do not take account of the time spent in the departments incurring the obligations.¹ But there is no reason why cash payments should not be made in less than five days through the different departments and bureaus where the liability originates, especially when the city's new system of ac-

¹ *National Municipal Review*, vol. ii, 1913, p. 225.

counting is in full operation. When this is done, the city will be able to secure the best cash discounts and make purchases at the most reasonable prices.

K. THE REPORT SHOWING THE CONDITION OF EACH ACCOUNT

As we have already pointed out, we are speaking only of the controlling accounts kept by the general book-keeper of the department of finance, over the detailed or subsidiary accounts kept by the disbursement division of the auditing bureau of the same department. Time and space do not permit us to discuss the latter, but the principles involved are the same as those we have explained.

The system of these detailed accounts is such as to enable the comptroller to issue periodical reports for the information of the mayor, the board of estimate and apportionment and others interested, setting forth the condition of each fund and appropriation account. These reports specify:

(1) Title of each appropriation account, or the title of each special revenue bond, corporate stock or special and trust fund account.

(2) The original amount.

(3) The total amount of funds available, the transfers being taken into consideration.

(4) The voucher or warrant charges.

(5) The unexpended balances, derived by subtracting the vouchers from the total amount of funds available.

(6) The contract and open-market order encumbrances, and

(7) The unencumbered balance, derived by subtracting

the contract and open-market order encumbrances from the total amount of funds available.¹

¹ In the *Annual Report of the Comptroller for 1911*, all these particulars are shown, except the last two. See the report, pp. 103-141. As to the chaotic condition of the accounts kept in the Department of Finance, before its reorganization, see the Report of the Bureau of Municipal Research to the Comptroller, entitled *General Description of New York City's Department of Finance, with Recommendations for Reform* (1908). See also the reports of the various divisions of the Department of Finance to the Comptroller, 1908.

CHAPTER XII

CONTROL OF EXPENDITURE FOR SALARIES AND WAGES UNDER THE NEW SYSTEM OF ACCOUNTING

A. BUDGET THE FOUNDATION OF ACCOUNTING CONTROL OVER EXPENDITURES

At the close of the last chapter of Part I., we touched lightly upon the subject of budget administration, but as no budget can be efficiently administered without a good system of accounting, we postponed full discussion of this topic until we were ready to deal with the subject of accounting control over expenditures, which forms one of the two main topics of this part. The primary reason for having a segregated budget, like that of New York City, is to estimate and provide funds to meet the operating and administrative expenses of the various city departments and, at the same time, to circumscribe the departmental expenditures within the purposes definitely stated in the budget, or to exercise a control over them by forbidding the departments to spend more than the pre-determined amount or amounts. Indeed, not only the various departments are restricted in the use of public funds, but also the several bureaus of each department and the several divisions of each bureau are placed under equally strict budgetary limitations. The principle that each appropriation provided for a specific purpose cannot be spent for another purpose, has been adhered to by New York City since the segregated budget came into existence, although the *inter-se* transfers are granted by

the Board of Estimate and Apportionment. These *inter-*
e transfers of appropriations are restricted, however, to
unctions within the same department, which are prac-
tically similar to those from which they are made.¹ A
well organized and segregated budget is, therefore, the
very foundation upon which an effective system of ac-
counting and administrative control rests.

B. THE DATA FOR THE MAKING OF PAYROLLS

The data for the preparation of payrolls are obtained
from the time and service records kept by the city de-
partments, which contain evidence of the attendance of
the city employees, the quantity of their work and its
results. Such a record is useful not only as a basis for
determining the efficiency of the departmental employees
for the preparation of payrolls, but also as a basis for
determining the efficiency of the departmental employees
for promotion and retention. When time and service
records are prepared, they are forwarded to the heads of
the divisions of the various departments, daily, weekly or
monthly, according to the nature of the work and the
other requirements.

Taking the city as a whole, there are now in use sev-
eral different kinds of time reports. The first is a daily
sheet for gangs of men who work together on different
kinds of work in a day. The second is a time report for
gangs of men who are doing the same kind of work
practically day after day. The third is a time record
kept by the time clock, with the registering instruments
attached thereto. The fourth is the weekly and monthly
time sheet, of which I shall speak in sufficient detail in

¹See the Resolutions of the Board of Estimate and Apportionment,
as attached to the Final Budget of 1914.

order to bring out the connection between the time and service records and the making of payrolls.¹

For purpose of illustration I will take the time and service records used at present by the water department, which is one of the largest departments in New York City. They are the weekly and monthly time sheets.² The details given therein are the bureau, division of the bureau, the week or the month for which the record is kept and the date on which it is prepared. All these appear at the top of the sheets. A column is provided for each of the following: (1) the name, the badge number, residence and civil service title of the employee, (2) the rate of pay, (3) number of days, including regular and special time and overtime, (4) total amount due to the employee, (5) schedule line letter, which I shall explain presently, and (6) distribution by amount to appropriation or fund account chargeable. The last column is divided into seven smaller columns for the insertion of code numbers.

In order to explain (5) and (6) clearly I must again call the reader's attention to the segregation of budgetary appropriations. The work of the water department, for instance, is classified into several functions, each of which is again classified into several sub-functions. Thus, collection of water revenue is a function of the water department. This function branches off into many sub-functions, of which inspection is one. In chapter three, it will be recalled, I present an imaginary schedule in the water department to illustrate the method of fill-

¹ An address on *Payroll Making and Auditing*, delivered by Mr. J. H. Clowes, a senior accountant of the research bureau, at the Bureau of Municipal Research, April 23, 1913.

² See the time and service records of the water department, forms no. 7 and no. 8.

ing out a personal service form in the preparation of budgetary estimates. There the schedule is given a code number, 482, and the various items grouped under this code number each constitute a schedule line. Thus, "chief inspector, 2 at \$2,250," is a schedule line.

The reason why the last column is divided into seven smaller columns is because an employee's time may be spent in several places, and therefore may be paid for from several different accounts, each account having a separate small column provided for it.

On the back of these time and service records are several certificates provided for the men in charge of employees. For instance, we have a certificate to be signed by a foreman immediately in charge of the weekly employees or other person in charge of the monthly employees. He must certify that the time shown on the time sheet and credited to each of the employees mentioned therein, truly, fully and correctly represents the time such persons, except when granted leave of absence, individually worked with due diligence for the city under his direction, etc. The superiority of such a certificate lies in the fact that it makes him responsible under the law of false certification.

C. THE PREPARATION OF PAYROLLS

These two sheets, when properly certified, are forwarded week by week or month by month, as the case may be, to the payroll division. The payroll divisions are to be consolidated in each city department, so that every payroll will be made out in one division, instead of in several different divisions, as it is to-day. The weekly or monthly payrolls, as they are made out to-day, are based entirely upon the information recorded in the two time and service sheets. When the sheets are once made

up, it is merely a matter of copying to make up the payrolls.

It is very necessary to have an absolute copy of the payrolls before they are sent to the department of finance for payment. For this reason, they are made in duplicate in some departments. The original is sent to the department of finance and the duplicate is retained in the department in which they originate for the purpose of establishing a record for future reference. In the water department, however, the place of the duplicates is taken by the time and service sheets I have spoken of. After these sheets have all been copied in the payrolls which have gone over to the department of finance, they are filed away in a book and form a duplicate payroll, showing all the information that the payroll shows, except that the method of arrangement is different.¹

Under a resolution recently adopted by the board of estimate and apportionment, the department of finance is required to furnish semi-monthly payroll forms for the convenience of those departments which wish to pay the present monthly payrolls semi-monthly. These forms are distinguished from the weekly and monthly payroll forms by different colors. Thus, they are white for the payment of monthly and weekly rolls, and blue for the payment of the first half of semi-monthly payrolls, and pink for the payment of the second half of semi-monthly payrolls.

D. THE RECAPITULATION OF PAYROLLS

The payrolls, after they are prepared, must be recapitulated on a form provided for that purpose. The purpose of recapitulating them on a single form is to bring to-

¹ *Payroll Making and Auditing.*

gether those payrolls which are chargeable, in whole or in part, to the same budget appropriation, schedule line, corporate stock, special revenue bond, or special and trust, fund account, so that the total amount chargeable to each of the accounts for the period covered by the payrolls may be shown through the operation of a cross addition.

To illustrate, the water department has some sixty pumping stations in Brooklyn alone. As they are scattered here and there at great distances, it is impossible to have one payroll cover all the employees working at those different stations. It is necessary to prepare a separate payroll for each station. But each one of these sixty payrolls is more or less chargeable to the same appropriation account and to the same schedule line, because the employees are the same class of men working at different stations. In assembling all the payrolls chargeable to one account or one schedule line, nothing can better serve the purpose than the recapitulation sheet, which is in use to-day.

The recapitulation of payrolls is required to show:

1. Numbers and titles of budget appropriation accounts, titles of budget schedule lines, numbers and titles of special revenue bond, corporate stock or special and trust fund accounts, represented on the payrolls, against which each employee's salary is chargeable.

2. The amount expended for the month or week.

3. The *pro-rata* of budget allowance for the period covered by the payroll, which may be one-twelfth, or one-twenty-fourth or one-fifty-second of the amount of each schedule line.

4. The accumulation to date of item (3), *i. e.*, the portion of each schedule line expendable to date.

5. The amount expended to date, including the current payroll of each schedule line.¹

6. The total schedule line allowance for the year, corrected as amended.

By the time this is printed some changes will have been made in the payroll forms and recapitulation sheets. Of the six headings indicated above, only the first and the third are retained in the new form of recapitulation sheets, the other four being eliminated. The new form is to be made out in duplicate, one to be forwarded to the department of finance with the payroll or payrolls which it recapitulates and the second to be retained for office record.

This recapitulation sheet provides for the following:

- (a) Where one payroll is charged against one code;
- (b) Where one payroll is charged against more than one code;
- (c) Where more than one payroll is charged against one code;
- (d) Where more than one payroll is charged against more than one code.

The use of the columns of the "Recapitulation" numbered 1 to 4 inclusive, in the case where a payroll under "d" above is to be recapitulated, is as follows:

¹ See Circular No. 6, *Preparation of Payrolls, upon Modified Forms, Approved by the Comptroller*, issued by the Department of Finance, March 30, 1909, p. 13.

This space for salary and wage-schedule lines and payroll numbers, where more than one payroll is recapitulated hereon.	Pro-rata of budget allowance to period covered by payroll recapitulated hereon.	Total payroll charges against each budget schedule line or fund account.	Recapitulation of code charges.		
			Code No. 1000.	Code No. 8-114.	Code No. 8-115.
10 clerks at \$1,200.	\$1,000.00	\$1,000.00			
Payroll No. 1			\$150.00	\$75.00	\$75.00
Payroll No. 2			150.00	75.00	75.00
Payroll No. 3			200.00	100.00	100.00
			\$500.00	\$250.00	\$250.00

In this case, one-half of the payroll charges is payable from the budget, and one-half, from other accounts, as indicated by the letter "s," which may mean special fund. This example represents the most complex condition that will be met with. The procedure for the simpler conditions may therefore, be easily understood, from this example. Where code distribution is required to a greater extent than permitted on the standard "Recapitulation" sheets, a paster is provided for extending these sheets.

It is important to note here that the information contained in the old form of recapitulation sheet, though removed from the new form, is, nevertheless, indispensable to the departments in the making of payrolls, to the board of estimate and apportionment which controls the payroll expenditure and to the comptroller who audits the payroll claims. It is removed from the new form because the necessity of furnishing it to the makers of payrolls no longer exists. It has been some six years since the scientific method of payroll-making and auditing was adopted by New York City, the city employees

in charge of payrolls having already acquired a habit of making payrolls without having this information shown on the recapitulation sheet. Furthermore, the removal of it reduces the burden of the recapitulation sheet to half.

**E. THE RESTRICTIONS OVER THE EXPENDITURE FOR
PERSONAL SERVICES**

Attention should be directed to the following budget resolutions adopted by the board of estimate and apportionment, as of October 31, 1910, governing the disbursement from and accounting for the appropriations for salaries and wages:

Resolved that no change shall be made by any board or head of an office, bureau or department in the city or county governments in the schedules of "Salaries, Regular Employees," "Salaries, Temporary Employees," "Wages, Regular Employees," "Wages, Temporary Employees," "Fees and Commissions" herein contained, except when authorized thereto by twelve (12) votes, and no requests for changes shall be considered except as follows:

a—In the case of schedules or appropriations of "Salaries, Regular Employees," where the proposed change will not increase the amounts expendable in any month to more than one-twelfth of the total amount herein appropriated for "Salaries, Regular Employees."

b—In the case of appropriations or schedules of "Wages, Regular Employees," where the proposed change will not increase the amounts expendable in any week to more than the pro-rata of the number of working days in such week to the total number of working days provided for such schedule line for the whole year.²

¹ Circular No. 26, *Instructions to Departments Regarding Payrolls*, issued by the Comptroller, July 28, 1914.

² *Budget for 1914*, p. xx.

* * * * *

In cases where changes in schedule lines or items have been authorized by twelve votes of the board of estimate and apportionment, all sums which have been expended against the new schedules shall not exceed the original sum expended against the old schedule. For instance, if an original sum or appropriation for a clerk at \$2,400 be changed as of July 1, to one clerk at \$1,200, one clerk at \$600 and two messengers at \$300 each, the total sum expended against the original should be apportioned on the July recapitulation as follows (assuming the full half-year allowance at the original rate equal to \$1,200 has been spent):¹

This space for salary and wage - schedule lines and payroll numbers, where more than one payroll is recapitulated hereon.	Pro-rata of budget allowance to period covered by payroll recapitulated hereon.	Total payroll charges against such budget schedule-line or fund account.	Recapitulation of code charges. Code No. 2,978.
Clerk at \$1,200	\$100.00	\$100.00	\$100.00
Clerk at \$600	50.00	50.00	50.00
2 messengers at \$300. .	50.00	50.00	50.00
	\$200.00	\$200.00	\$200.00

Another important restriction imposed upon the departmental heads in the disbursement of public funds for salaries and wages is that the departments, when submitting their estimates, must show the various grades of employment, the number of incumbents in each grade and the rate of compensation, all of which are incorporated in a salary and wage schedule contained in the budget. No payroll is passed by the department of

¹ Circular No. 18, *Instructions to Departments Relative to Payrolls*, issued by the Comptroller, December 27, 1910, p. 6.

finance, unless the incumbents and the rate of compensation agree with such schedule line as originally adopted or modified by the board of estimate and apportionment.

Still another important restriction is imposed upon the departmental heads in the making of transfers from one schedule to another. For instance, they are not allowed to make transfers, from appropriations or schedules of "Salaries Regular Employees," to any other appropriation or schedule than "Salaries Regular Employees," from appropriations or schedules of "Salaries Temporary Employees" to any other appropriation or schedule than "Salaries Temporary Employees," from appropriations or schedules of "Wages Regular Employees" to any other appropriation or schedule than "Wages Regular Employees," and from appropriations or schedules of "Wages Temporary Employees" to any other appropriation or schedule than "Wages Temporary Employees."¹

These and some other restrictions of a similar character had the effect of returning to the general fund, as we shall see later on, large balances of appropriations which under the old practice would have been wasted in the different departments during the closing months of the year.²

F. THE PURPOSE AND SIGNIFICANCE OF THE RESTRICTIONS.

The several restrictions we have discussed above are intended to remove, or at least, to make difficult, certain evil practices that are inimical to the purpose of budget-making. It has been a common practice among the departmental heads to keep the personal service expenditure

¹ See the resolutions accompanying the preface of the 1914 Budget.

² *Annals of American Academy of Political and Social Science*, 1912, vol. xiv., p. 47.

at a low level for a portion of the year in order that the accumulated excess may be used to increase the salaries of their favorites just before the budget-making time. This had the effect of making the appropriating body treat these padded rates of compensation as the basis for the appropriation, of subsequent years.

It was heretofore not an uncommon thing for departmental heads to use the higher salaries on the competitive civil service list when vacancies occurred to employ a large number of cheaper employees, especially when an election was approaching. This resulted in filling offices with incompetents and seriously affected the *esprit de corps* of organization. Another evil practice was to spend the unexpended balances of the accounts in a wasteful way, at the end of the year, instead of allowing them to return to the general fund. Still another evil practice was to run at a relatively high rate of expenditure at the beginning of the year, thereby exhausting the appropriation before the year is ended and forcing the board of estimate to issue special revenue bonds. The last means resorted to was to ask for more employees at the budget-making time and then to reduce them in order to have an available surplus to increase the salaries of favorites.¹

All of these have now become a thing of the past, as a result of the restrictions discussed above.

The importance of these restrictions cannot be too sharply emphasized. Payrolls make up the largest item in the annual budget. In 1913, out of a budget of \$192,700,000, \$91,317,000 was spent for payrolls alone.* To this amount should be added \$20,000,000 paid out of other funds. Were it not for the restrictions, the payroll

¹ See *Handbook of Municipal Accounting*, p. 150.

*See a leaflet, *Tracing Tax Increase to the Payroll*, issued by the Bureau of Municipal Research, July 26, 1913.

expenditures for 1913 might have been several million dollars higher.

The significance of these restrictions is clearly demonstrated by the marked increase in the returns of unexpended balances of salary and wage appropriations to the general fund, for the diminution of taxation. Thus, for the year 1908, before the schedule regulations of the board of estimate and apportionment were enforced, the amount of unexpended balances returned to the general fund was only \$314,760.76. In 1909, the amount returned rose to upward of \$1,081,748.34, owing to the fact that some partial schedule regulations had already taken effect by that time. In 1910, when these regulations were fully enforced, the amount returned from the same source came up to \$1,958,730.67. For 1911, the salary and wage accruals returned to the general fund aggregated \$1,391,185.26, showing a decrease below the previous year of \$567,545.41. This decrease was, however, due to the fact that a large cut had already been made in the salary appropriations for most of the departments, in pursuance of a resolution adopted by the board of estimate and apportionment, requiring all the city departments to reduce the 1911 estimates by ten per cent.¹

G. PAYROLL EXAMINATION AND PAYROLL AUDITING

When the originals of the payrolls are forwarded to the department of finance, they are registered there, the register forming the basis of the journal entry reading:

Departmental expenditures (undistributed).

To payrolls payable (unaudited).

The significance of this entry is that the "department expenditures (undistributed)" are debited, because the

¹ *Annals of Am. Acad. of Pol. and Soc. Science*, p. 50.

payrolls are charged to departments where they originate, and the account of "payrolls payable (unaudited)" is credited, because the unaudited payrolls form a liability against the city. After they are registered, they are sent to the civil-service commission for examination. This commission is appointed by the mayor, on the condition that not more than two-thirds of its members shall be members of the same political party. Under chapter three of the general laws, commonly known as the civil service law, this commission is charged with the duty of prescribing, amending and enforcing rules for the classification of the offices, places and employments in the public service of the city, as well as for the registration and selection of employees for employment therein.¹

The payrolls are examined by this commission to ascertain if the employment of the individual employees is in accordance with the civil service rules and if the kind of work they are doing for the city is exactly what their civil service titles call for. If any person is employed in the municipal service in violation of the civil service laws and rules, the persons preparing the payrolls and certifying to their accuracy are held responsible for the false statements, contained therein, under the law of false certification. If an employee is engaged in work which is not called for by his civil service title, the fact must be shown on the payroll. Failure to do this makes the departmental head legally liable for false certification, since his certificate, as we shall see later on, specifically covers this point. In this way, the *esprit de corps* of corporate organization is protected from corruption and the municipal employees are relieved from favoritism dis-

¹ New York Charter, section 123.

played in assigning them to positions for which they are not qualified.

Upon the return of the payrolls from the civil service commission, they are audited in the department of finance to see whether or not they are properly made out, *i. e.*, whether the grade of service, or the title of each schedule line, the number of incumbents, the rate of compensation, the *pro rata* for the month or week, the footings and extensions, etc. are all correct. In other words, the payrolls are compared with the comptroller's record to see whether or not they are in every respect in accordance with the provisions of the budget and the resolutions of the appropriating body. Every fact essential to proper audit by the comptroller should be set forth on the payroll. As these facts are certified to by persons immediately in charge of the employees or cognizant of the facts, and verified by the comptroller's auditors, it is safe to say that the payroll expenditure of the city is now practically brought under control. In case discrepancies or errors are found in the payrolls, they are held up for further investigation. Otherwise, they are passed by the department of finance and a warrant is drawn for their total amount in favor of the city paymaster. The amount of the warrants drawn is registered and forms the basis for a journal entry reading:

Payrolls payable (unaudited).

To warrants payable.

This entry shows that the account of "payrolls payable (unaudited)" is reduced by the amount of the payrolls which have been audited and for which warrants have been drawn, and that the account of "warrants payable" is credited, because a portion of the liability originally represented by the unaudited vouchers is now

represented by the warrants which have been drawn to cover them.

The total number of employees of the city was estimated (1912) at 107,000, of whom about 85,000 are regular and 22,000 temporary employees. The latter consist chiefly of the election officials, and about 15,000 men temporarily employed by the street-cleaning department in the removal of snow. About 65,000 of the regular employees, including over 17,000 teachers, over 10,000 policemen, and over 4,300 firemen, are paid by checks, amounting to approximately \$75,000,000. The amount paid in cash aggregates about \$14,000,000.²

H. PAYROLLS SUPPORTED BY CERTIFICATES

In New York City, payroll facts are developed and supported by the several certificates which are signed by persons in charge of the payroll and those having knowledge of the facts. These certificates are intended to cover the most important features in payroll making. Every essential element of information necessary to the location of the responsibility for the correctness and integrity of payrolls should be included in the certificates. When this rule is strictly conformed to, it is well-nigh impossible for the signers of the certificates to offer the same pretext as they did during the period of loose administration, that they could not assume the responsibility for the accuracy of the payrolls, because they could not have facts brought to their knowledge.

The certificates that are now required to be signed by the department officials are as follows:

- a. The person under whose direction the payroll or payrolls are prepared certifies that the payroll is correct and the

² *National Municipal Review*, vol. ii, no. 2, April, 1913, pp. 222-223.

amounts stated on the accompanying payroll sheets no. 1 to — are correctly recapitulated in the payroll voucher and are properly charged against the accounts stated therein, and so on.

b. The departmental auditor or bookkeeper or other person cognizant of the facts certifies that the amounts shown on the payroll voucher are proper charges against the account or accounts stated herein, that payment of the amount stated will not exceed the unencumbered balances of the respective appropriations or other funds authorized after such appropriations or funds have been charged and encumbered with all outstanding liabilities incurred against them, and so on.

c. The head of the department certifies that the signatures of the persons designated by him to make the payrolls are genuine, that the persons named thereon were duly elected, or were appointed or promoted to, or employed in, the position indicated in accordance with the Civil Service Law, that except when granted leave of absence, the persons named on the payroll have been regularly employed in the performance of the appropriate duties of such indicated positions and have at no time during the period covered by the payroll been assigned to the performance of duties pertaining to any other position except as otherwise stated in the payroll, and so on.¹

¹ See the certificates printed on the back of the new forms of recapitulations. Compare the new certificates with the old as shown in the pamphlet, *Preparation of Payrolls with General Instructions to Departments Relative to all Forms of Payrolls, etc.*, issued by the Department of Finance, March 30, 1909, pp. 17-21.

VITA

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