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Municipal accounting and the municipal balance sheet; Municipal balance sheet; Municipal statistics; Governing distinctions in municipal accounts; Review of the comptroller's annual report of 1903

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Municipal Accounting

AND THE

Municipal Balance Sheet

MUNICIPAL ACCOUNTING
AND THE
MUNICIPAL BALANCE SHEET

PAPERS

Read before Conferences of City Comptrollers, Municipal
Auditors, and Accountants, held under the auspices of the
UNITED STATES CENSUS BUREAU

at

WASHINGTON, D. C.

Nov. 19th and 20th, 1903; and Feb. 13th and 14th, 1906

by

DUNCAN MACINNES, C. P. A.

and

RICHARD M. CHAPMAN, C. P. A.

Representing the Department of Finance

of the

City of New York

THE MUNICIPAL BALANCE SHEET :

Its Purposes, Elements, and the Significance of its
Balance. Underlying Principles of Accountancy which
govern its Elements, and the Expression thereof.

MAC INNES

MUNICIPAL STATISTICS :

Governing Distinctions in Municipal Accounts.

CHAPMAN

1906

PREFACE

In the course of their experience as Accountants in the Department of Finance of the City of New York, Messrs. Chapman and MacInnes designed and formulated an entirely new plan of stating the annual Reports of the Comptroller of said City.

The scheme as outlined and explained was carefully considered, and the authors were commissioned to proceed with the preparation of the annual Reports in accordance therewith.

The first Report issued under the new plan was a review of the year 1902 in one volume; since which the transactions and results of the succeeding years have each been reported and expressed in like manner but in two volumes, and with notable improvement in printing, binding, and general workmanship.

The appreciation with which the Reports were received is indicated by the following excerpts from the Comptroller's letter to the public in regard thereto, and by the appended press notices:

“It has been a main object in the preparation of this report to meet the public demand for a more clear and intelligible presentation of the city's financial transactions.

“The outline of the plan upon which this report has been made—which was a radical departure from the plan of previous reports—was published and submitted to the press, to the Mayor and other city officials; to the presidents of many of the large banking, financial and other kindred institutions throughout the country; and to the representatives of the civic and other societies interested in the city's affairs, particularly with regard to the volume and general purposes of its great financial transactions, and was by many of them highly commended. The following excerpt from ‘Pit and Post,’ a Chicago financial publication, is fairly representative of the criticisms evoked:

“One of the most useful pieces of official enterprise observed in a long time was the initiative of Comptroller Grout, of New York City, to clarify the accounting system of the municipality. At his instance eminent certified accountants of New York made an ex

haustive analysis of the whole fiscal record of the City for the year 1902 in conformity with a scheme which they had previously worked out on strict theoretical lines. The result is easily the most valuable classification of public accounts which has come to our notice, and it ought to be most attentively studied by everybody who has anything to do with bookkeeping in its varied applications, from the simplest to the most complex.

“Apart from the utility of the ‘demonstration’ of the new method, as published by the Comptroller, the analysis of the several accounts and the reasoning by which the details of the scheme are supported in argument, make an invaluable text book for students of accounts and the theory of accountancy.

* * * * *

“Especial merit attaches to the systematic treatment of the ‘city debt’ and the ‘sinking funds’ in their relations to the total of assets and liabilities—in fact, the clarity of the analysis of sinking fund assets with respect to the city treasury could hardly be surpassed.

* * * * *

“At a time when so great importance is attached to ‘publicity’ and candid accounting it would seem as if this work of Comptroller Grout should attract universal attention, and command the careful study of all public and private corporations. It would be a great blessing to the public if all accounts of every corporation in which the people have any interest were published in some analogous form.

“There can be no excess of information about enterprises that are capably managed; and incapably managed concerns, whether governmental or industrial, should be compelled to confess their defects in their accounts so that every one may be warned against them.

“Comptroller Grout has done a veritable public service not only to the City of New York, but to the whole country.”

“The full report for the year 1902, which has been developed and completed by Mr. Richard M. Chapman, C. P. A., and Mr. Duncan MacInnes, C. P. A., is now herewith submitted.”

EDWARD M. GROUT,
Comptroller.”

It was chiefly on account of the obvious merit of the work performed by them that Messrs. Chapman and MacInnes were deputed to represent the City at the Washington Conferences on Municipal Accounts and Statistics, at which the papers forming the subject of this pamphlet were read and discussed.

Extract from "The Journal of Accountancy" (monthly),
November, 1905, in re the

ANNUAL MEETING OF THE
AMERICAN ASSOCIATION
OF
PUBLIC ACCOUNTANTS

Hotel Astor, October 17, 1905

18th ANNIVERSARY BANQUET

To the toast "The City of New York", an eloquent response was made by the Hon. Edward M. Grout (Comptroller), in which he said, *inter alia* :

"I believe throughly in your profession. I believe I have more certified public accountants upon the payroll of my department than are to be found in any other department of the city, and I believe that no other men on the payroll of the city have performed better work than they have. (Applause.) I intended very large things in this direction when I went into office four years ago. I have performed in a vicarious manner, through the certified public accountants, little of what I expected to do because the field is great and the difficulties are great; but we have, at last in that department, produced a new form of the accounts of the city in the annual report of the Comptroller—the credit of which is due to two of your members, Messrs. Chapman and MacInnes, or, to put it as I should also, Messrs. MacInnes and Chapman, for I want to put them upon a parity (applause) —more than it is due to any one else, and I had hopes four years ago that it might be extended to other departments of the city. However, that has not been possible. I believe in your profession. It is not, as many people believe, the mere system of recording what is past. It is a system by which the errors and the misdirections and the inaccuracies of the past are analyzed and are made a guide for future action."

(From the Journal of Commerce, N. Y., Nov.
27, 1905.)

REVIEW OF THE COMP- TROLLER'S ANNUAL REPORT OF 1903

Comptroller Grout has issued Volume No. 1 of the annual report of the Department of Finance for the year ended December 31, 1903. This is the second annual report under the new plan which was formulated during the administration of Mr. Grout and under which his first annual report for the year 1902 was published.

In explanation of the time intervening between the close of the year under review and the stated date of the report the Comptroller says:

“The work of restating the accounts of the city upon the lines of this report and its immediate predecessor—which are radical departures from the arrangement and form of expression of previous reports—has occupied considerable time and occasioned corresponding delay in their publication, but the difficulties attending this new departure are gradually being overcome, and in time these annual reports will be ready for publication within a comparatively brief period after the close of the fiscal year dealt with.”

The expediency of presenting the annual report of the Comptroller in two volumes has

been adopted for the first time in this, the report of the transactions of 1903, by reason of the unusually large book which results from publishing the full digest of the Comptroller's yearly accounts in a single volume, and also because of the obvious advantage which attaches to the presentation of all the leading tables and statements within the compass of a medium sized book. This compact volume consists of a series of tables and statements giving a succinct presentation of all the salient facts of the city financial transactions for a year, treated in such a consecutive mode of progression as to give a concise and yet comprehensive view of the operations of the city treasury and its sinking funds. In several of these tables and statements there are set against the figures of 1903 the corresponding figures of the preceding year, thus affording a direct comparison of the one year's income and outgo with the other.

The opening summary (on page 1) sets forth the total actual cash receipts and disbursements for the year under review, together with those of the year preceding aligned in parallel columns, arranged under such significant classifications as to show at once the sources from which the city draws its revenue and the cause of its expenditure. From this table many valuable comparative facts can be readily ascertained, such as that the outlay for public undertakings during the year 1903 amounted to \$72,209,325.37, as against \$45,265,922.36 for the previous year; that the redemption of the principal of the city debt was \$92,652,000, as compared with \$67,589,000 during the year preceding; and that the receipts from all kinds of miscellaneous revenue collectable by the city was \$19,083,790.82, as compared with \$17,403,725.81 during the previous year. The enormous increase in the business of the Comptroller's office is to some extent indicated by the comparative total figures of actual cash receipts and payments during the years

1902-1903 respectively, as shown by the summary on page 1, wherein the receipts for 1903 are stated at \$256,909,100.35, as compared with \$199,550,048.33 for 1902, and the payments for 1903 amount to \$253,566,028.29, as compared with \$201,126,577.74 for the year preceding, an increase, roundly speaking, of 25 per cent. during one year.

This exhibit of the city's actual cash transactions is a veritable primer of its various sources of income and cause of expenditure, and an admirable example of accounting conciseness. The primary tables (six in number) are lucid summaries of the entire financial operations of the city treasury and the sinking funds, which, together with the statements giving further details, will doubtless be appreciated by everyone interested in obtaining a general knowledge of the character and amount of the city's receipts and expenditures.

It has been Comptroller Grout's purpose to so clarify the accounting system of the city as to enable a clear and intelligible presentation of its enormous annual financial transactions, and in this he has admirably succeeded.

Copy of a paper read before a conference relative to Municipal Accounts, Reports and Statistics, held at Washington, D. C., at the invitation of the Federal Census Bureau, on November 19th and 20th, 1903, by

DUNCAN MACINNES, C. P. A.

(Attached to the Department of Finance, City of New York.)

THE MUNICIPAL BALANCE SHEET

WHAT ARE TO BE REGARDED AS ITS PURPOSES, WHAT ELEMENTS SHOULD IT DISPLAY, AND WHAT IS THE SIGNIFICANCE OR ITS "BALANCE"?

Comparing and Confusing a Municipality with a Commercial Undertaking.

A misunderstanding of the purpose of Municipal Accounts and an erroneous conception of the true status of the municipality, comparing and confusing it with a commercial undertaking, have given rise to a demand for a Municipal Balance Sheet cast on substantially the same lines as that of a manufacturing or business corporation or other private estate, showing Assets, Liabilities and Capital.

A city, or other political entity, however, has no obligation equivalent to the Capital Stock of a business corporation, partnership or single proprietor; and, therefore, has no reason in arranging the assets and liabilities in juxtaposition for

the purpose of determining the net worth or insolvency of the trust; neither has a city a "Profit and Loss" account, consequently there is no increase or decrease of any vested equity or expressed capital interest.

The Assets of a City. The Assets of a city are indeterminate, and among them is the right to levy imposts, which fluctuate with the needs to be provided for and bear light or heavy, according to the wealth taxed. The Liabilities of a city embrace innumerable contingencies which, although ever accruing, are indeterminate until crystallized into admitted claims.

The Cash Assets in hand or collectible, and the established Liabilities and Funded Debt may show an excess on either side without such significance attaching to the resultant balance as is represented on a commercial balance sheet by "Surplus" or "Deficiency," "Capital" or "Insolvency." The Public Works, Improvements and Utilities possessed by the community belong to the people and the municipal corporation is merely the keeper or trustee, possessing no right to sell or convert that would warrant their inclusion on a Balance Sheet designed for the purpose of expressing the related Resources and Obligations of an estate with the implied realization of the one for the liquidation of the other.

Values to be stated in Municipal Balance Sheets. In order that a Balance Sheet may have any excuse for being, a positive and essential meaning must attach to the Balance stated thereon; and, therefore, the Balance Sheet of a municipality must array on its opposite sides only such values as can be measured and the difference between which represents the value of a significant and appreciable fact. There is no legitimate reason for creating a municipal balance sheet until there arrives the necessity to determine the amount of a pertinent object which is measur-

able only by arraying in opposition known elements comprehended in the corpus of a municipal estate, and until the demand for enlightenment upon a fact deducible in no other way is fairly occasioned the real and properly accredited municipal balance sheet will fail to arrive.

There remains, however, in all probability many as yet undiscovered and unexploited possibilities, growing out of the accounting expedient of opposing contra things, and it is possible that a municipal balance sheet may be among them. It is only natural, therefore, to anticipate the event of its recognition, inasmuch as the demand for such a balance sheet suggests the possibility of there being such a thing in fact and excites interest and stimulates investigation in the direction of what use the Balance Sheet might serve in the realm of Municipal Statements.

In reports upon the financial operations of the National Treasury and the several States, attention is usually directed to the degree in which the budget has proven either inadequate to or in excess of the actual requirements as finally disclosed by the sum total of the expenditures made; and the terms "Deficiency" and "Surplus" have been employed to designate respectively the excess of expenditure over income, and the excess of income over expenditure, in a given fiscal period. Where the deficiency so stated has the effect of depleting accumulated reserves without entailing additional debt, or the surplus as stated merely augments former balances and no contraction of debt follows as a direct consequence, they bear a closer resemblance to the current net profits or net losses disclosed by a commercial "Revenue Account" than the Increase or Impairment of "Capital" in a Balance Sheet. If, however, a Statement or Balance Sheet is prepared by a municipality setting on one side the cash funds and realizable assets, so far as contained in the books, and on the other side the cash liabilities upon warrants registered by the Comp-

troller, claims admitted by the Auditor, and contingent liabilities reported by the several departments, with due regard to preserving the proper relation between the resources and obligations so that the realization of the one would measure the means of liquidating the other, the resultant balance would indicate the condition of the public trust with respect to its floating assets and liabilities at the date specified and accordingly the deficiency to be met in the ensuing period or the surplus available for lessening future provisions; in short, such a balance would show what was taken from or given to the resources and provisions of the period following.

**Limitation of Debt-
Contracting Power
of Cities.**

In consequence of the debt contracting power of cities being limited to a percentage of the taxable value of the real property contained within the limits thereof (in the case of New York City the constitutional limitation restricts the indebtedness to 10 per cent. of the assessed valuation of its taxable real estate), it becomes a matter of great importance to correctly determine the margin of credit yet available for issuing corporate stocks and bonds of the municipality, and as the taxable value on the one hand and the bonded debt on the other are constantly increasing or at least fluctuating, the relation between them must be closely watched and frequently verified by careful calculation.

The debt limit as determined by the balance or difference between a stated percentage of the total taxable values of realty, plus Sinking Fund investments, etc., displayed on one side, and the total funded debt, both contracted and authorized, on the other, presents the nearest analogy to the Capital of a Commercial Corporation or Merchant Trader. It is what the municipal corporation may be fairly said to possess by virtue

of its charter and functions and, therefore, constitutes the basis of its credit and the measure of its right to engage in public undertakings.

Thus reasoning there is some color to the preparation of a municipal balance sheet; in the first instance for the purpose of displaying the condition of the floating estate, and in the second showing the Net Credit of the municipality or its margin of debt-incurring liability. In the latter form the items of total valuation upon which the city may levy taxes (the assessed value of personal property being shown separately) to meet its current expenses would be a feature of additional interest.

“Unavailable Assets” (?) arrayed as serious Factors on Municipal Balance Sheets.

Numerous Balance Sheets have lately appeared in Municipal Reports and have also been stated pro forma in schemes of municipal accounting. These lean to the Merchant Traders' idea, and array among the assets, in addition to cash and elements realizable, such items as the cost or conceded values of parks, bridges, schools, police station houses and other public buildings, water works and similar possessions broadly designated as “Unavailable” and “Fixed Assets;” on the other hand they array as Liabilities the floating and Funded Debt.

As an indication of the extent to which such an array of properties—which determine nothing as to the true condition of the municipal trust nor even remotely indicate the sum of its financial credit—has been seriously considered and stated as proper elements for inclusion on a municipal Balance Sheet I would crave your indulgence while now submitting an exhibit of the “Assets of a City” presented in a proposed “Digest of the Public Affairs of a City,” promulgated by an association of public-spirited citizens whose zealous interest in the proper administration of that

city's affairs has prompted them on various occasions to seriously offer and urge the recognition of what they considered were improvements in city bookkeeping and in the plan of presenting its annual reports.

"ASSETS OF A CITY."

Cash in Treasury.....	\$ 13,566,738
Uncollected Taxes.....	44,656,942
Sinking Fund.....	110,636,438
City Hall.....	9,757,000
Police Department.....	4,780,599
Fire Department.....	7,813,325
Schools.....	46,421,756
Libraries.....	300,000
Art Galleries, Museums, etc.....	19,810,000
Parks.....	296,871,791
Jails.....	5,958,000
Workhouses, Reformatories, etc....	6,989,500
Hospitals.....	10,625,500
Asylums, Almshouses, etc.....	6,095,250
Docks and Wharves.....	67,336,000
Ferries and Bridges.....	28,838,250
Markets.....	9,288,000
Cemeteries.....	56,000
Bath Houses, etc.....	280,000
Water Works.....	115,526,748
Other Assets.....	28,386,865
	\$833,984,712
Total.....	

"The foregoing table gives 'book values' of City properties so far as obtainable from the records; supplemented by approximate estimates. (It seemingly excludes Streets and Highways from the list of Public Assets; nor do Sewers or Street Lights appear in the schedule; unless covered by the item "Other Assets.") If the cost of Street Openings and Pavements were included, the total of City Assets would be much greater.

For example, one great Street improvement alone cost some \$40,000,000 ; and another Street opening has likewise cost an enormous sum."

Even cemeteries, streets and highways, the cost of street openings, pavements and widening were all to be included and shown as Assets of the municipality for the purpose apparently of opposing these by certain liabilities.

As an appendix to a municipal Balance Sheet (displaying on the first form the elements of Cash funds and realizable assets as opposed and in juxtaposition to the Cash liabilities upon warrants registered, etc. ; and on the second form, a stated percentage of the total taxable value of realty, etc., as opposed to the total funded debt), a properly classified schedule setting forth the appraised values of city properties, such as public buildings, parks and squares, bridges, tunnels and other subways, water works, etc., etc., stating separately and in the aggregate the values of sites, buildings and equipment, would prove of much popular interest, but to include such as an integral part of a municipal Balance Sheet would be in fact to repeat values that were already merged into and had become a part of the values of the taxable real estate on which the faith and credit of the municipality was based and which measured its legal right to or precluded it from engaging in further public undertakings.

A schedule such as indicated in the preceding paragraph could be made the basis of an important appendix to the Balance Sheet, showing on the one hand the conceded current valuations of these city properties (classified, wherever possible, as to site, buildings and equipment), and on the other the cost of such to the municipality. The resultant balance, or difference between cost and valuation would reflect a significant condition (i. e., appreciation or depreciation, as the case might be, in value as compared with cost), which

would also, in all probability, prove one of the factors in determining the city's actual standard of credit.

Absurdity of including Elements on Municipal Balance Sheets that can in nowise determine the financial condition or credit of the Municipal Trust.

When certain large cities throughout the country and societies formed for the purpose of advancing and improving the methods of municipal accounting offer as serious creations municipal Balance Sheets framed upon the untenable lines of including elements (such as referred to herein) that can in nowise determine the financial condition or credit of the Municipal trust, and the Balance on which conveys no significant meaning, it is time to carefully look into the subject and see whether the demand for a municipal Balance Sheet cannot be met by a production that will at least offer its own excuse for its existence.

The absence of any legislative enactment determining the preparation of municipal Balance Sheets in any particular form gives to the accountant much latitude with respect to the forms he may adopt, and while this may act as a drawback in bringing about a uniform mode of stating accounts of the same nature, there is still open to those engaged upon the work of formulating municipal Statements and Reports the possibility of uniting upon the best forms to convey a significant meaning, and establishing such forms by usage to the end that they may be legally confirmed before legislative enactment may make inferior forms mandatory.

(Signed) DUNCAN MAC INNES.

November 19, 1903.

Paper read at a Conference of Comptrollers, other fiscal officers and accountants, held at Washington, D.C., under the auspices of the United States Census Bureau, on February 13th and 14th, 1906, by

DUNCAN MACINNES, C. P. A.,

(Attached to the Department of Finance, City of New York.)

THE MUNICIPAL BALANCE SHEET

UNDERLYING PRINCIPLES OF ACCOUNTING WHICH GOVERN ITS ELEMENTS AND EXPRESSIONS THEREOF

Classification of Municipal Accounts adopted by the National Municipal League lacking in practical meaning or value.

The first financial statements of municipalities, prepared in accordance with the classification of accounts adopted by the National Municipal League (and which classification is designated as the "Municipal Programme"), grouped the Receipts and Payments in opposition to each other in the order of prescribed titles and sub-titles, the nomenclature and sequence of which were identically alike on both sides of the statements. The first or controlling statement dealt with a broad classification and the succeeding statements developed

sub-titles by progressive stages of amplification. Throughout the entire series of primary and supporting statements not only were the receipts and payments opposed and distinguished by the same titles and in the same order, but each item of receipt and of payment was further either divided between or allocated under one of the two all-pervading alternatives distinguished by the terms, "Ordinary" and "Extraordinary."

That feature of the theme of expression wherein the receipts and payments were recited with like titles and in like order is being gradually abandoned by its original sponsors and advocates. Traces still linger, where a semblance of justification remains, as in the case of opposing collection costs to receipts, or departmental receipts against departmental expenditures bearing but an accidental or at greatest remote relationship to such receipts; but the necessity of giving expression to other distinctions of more vital significance and requiring a radically different arrangement and nomenclature is so certain to supplant the said arrangement peculiar to the Municipal Programme that the only menace it offers to progressive accounting is the time lost in pursuing a path that leads to nowhere and must in consequence be finally abandoned.

The other feature of the theme, however, which seeks to differentiate between "Ordinary" and "Extraordinary" is one which, although it is destined to ultimately die the death, will nevertheless die hard and occasion a correspondingly greater obstruction in the path of logical accounting. It, too, is a road that leads to nowhere, but it is a long and alluring one, and the loss of time spent in winding its course is not so soon to be realized.

The Terms, "Ordinary" and "Extraordinary"; or "Capital," and "Revenue" serve no REAL purpose in Municipal Accounting.

One of the purposes of this article is to show that there is no necessity or reason for recognizing any such distinction and that the use in municipal statements of such terms as "Ordinary" and "Extraordinary," or the later and more popular substitutes, "Capital" and "Revenue" serves no real purpose nor do they convey any significant meaning.

When the terms "Ordinary" and "Extraordinary" were first exploited as expressing a governing differentiation in municipal transactions they were totally destitute of inherent suggestiveness to any one outside of the circle wherein said terms originated. Inquiry as to what they were intended to convey elicited the explanation that they corresponded in the main to "Capital" and "Revenue." Taxes, it was stated, were Ordinary Receipts, while money borrowed on the City's credit by sale of bonds was Extraordinary. On the other hand, the salaries and wages of officials, clerks, police and street-sweepers were Ordinary expenditures, while the cost of erecting and equipping public buildings or paving streets was Extraordinary. In other words, we must picture the operations of a trading corporation as if its going transactions incident to purchases, sales and management were ordinary or revenue activities, while if it borrows by issue of bonds and pledge of assets to build extensions to its plant or equipment such are extraordinary or capital transactions.

But the so-called "Extraordinary" transactions are as frequent, constant, extensive and inevitable as the "Ordinary" ones, and if Capital and Revenue are intended why not say so at the outset? The natural result is that the terms "Ordinary" and "Extraordinary" are falling into disuse and the terms "Capital" and "Revenue" are be-

coming more popular. Ambiguity at least is now removed, and the propriety of the latest expedient can be considered in the light of day with a full consciousness of what it stands for.

The distinctions of "Capital" and "Revenue" introduced in the General Accounts of a city by those adopting this expedient may be due to the fact that the departmental accounts and reports of British cities and those relating to the public utilities owned and operated by these cities as municipal industries are controlled by a system of accounts reflecting Capital and Revenue, cast upon the same lines as those of similar private enterprises; but the failure to distinguish between the genius of the accounts dealing specifically with the separate enterprises of a municipality (referred to further on in this paper) and the underlying principles governing the General Accounts of a city, probably comes from the tendency to imagine that the conditions which attach to the familiar accounts of the private corporation bear in their entirety upon the accounts of a city.

The Wealth of a City. A city, per se, has neither capital nor revenue, but consists of an aggregation of private estates with certain properties possessed in common, and its accounts can truthfully reflect only the administration of the common interest by authorized payments from authorized provision or letters of credit, with such other and casual income and expenditure as are incident to its complex activities. All receipts, whether arising from general tax, special assessment, water rates, sale of bonds, or fees and fines, alike come out of the private estates within the city, some at the outset and others eventually, and all payments are alike for public service on behalf of the citizens, either for their personal protection, education or convenience, or

for increased facilities which heighten the value of their property and the advantages that they in consequence enjoy.

The wealth of a city is as seen from the hilltop. It is the collective wealth of the freeholders and their tenants. Every public building, park, street and sewer has been paid for by the inhabitants, belongs to them in common, and enhances the value of every business and residential holding, which is taxed accordingly, while the Municipal Corporation, when considered as a separate entity and apart from the private estates within its territory, is a penniless nonentity. As its balance sheet therefore can contain no assets but what belong to its inhabitants and no obligations but what their private estates are pledged to discharge, no significance attaches to the wealth held in common beyond what attaches to the wealth held by each and all individually.

When a public work is undertaken the funds are raised upon the credit of the collective private wealth which is ultimately to bear the burden of discharging the obligation so created. When the work is completed and put into service by the city, the account credited with the funds raised and charged with the expenditure thereof is closed upon its books and marks the discharge of the trust, while the value of the added facility, whatever it may be, is at once absorbed by the private estates benefited and occasions a latent increase in their value. Any attempt, therefore, to recognize in the general statement of the condition of a city the values of common properties as if the same were assets available for conversion into funds to liquidate liabilities or to measure a wealth that could be mortgaged by or partitioned among the inhabitants as if they were so many stockholders, in the same manner as the fixed assets of a private corporation, is seeking to express a condition that does not exist and forcing a construction that is fictitious, arbitrary, meaningless and withal misleading.

The Accounts of a City.

The accounts of a city, if properly kept, clearly indicate the several sources of receipts under a normal and therefore easily comprehended classification. Collections of taxes would not be confounded with proceeds from the sale of bonds, and receipts which are immediately realized would be clearly distinguished from those which draw upon future resources. In the same manner, payments for the current expenses of administration and made out of appropriations or anticipations thereof call for a radically different procedure with respect to both provision and expenditure from those which characterize the projection of public works and relate to extensions of the City's equipment and facilities.

But while the receipts may broadly reflect the distinction just noted, i. e., as derived respectively from present and from future resources, there is a large proportion that occupy a middle ground, as well as to which other and varied specific considerations apply, and the two extremes so shade into each other that any attempt to draw a line and establish an absolute division under such terms as Capital and Revenue, or Ordinary and Extraordinary, can only be done at the sacrifice of a rational and truly significant classification (which the accounts automatically provide in their natural action), and the substitution therefor of an artificial and arbitrary distinction which is meaningless because unreal. In like manner, while the payments may broadly reflect the distinction between immediate necessities and projected betterments, there also exists a large range of outlay upon debatable ground, qualified by isolated peculiarities of purpose and expedient that places them without the pale of any such immediate distinction, and accordingly the same reason that discourages an arbitrary classification of receipts under the two heads stated applies with equal force to payments.

Certain undertakings which yield substantial income are conducted solely by other funds than those that spring from them. The Dock Department of the City of New York, for instance, is financed entirely by the issue of Dock Bonds and the premiums realized thereon, both for administration and construction. The distinctive receipts of the Department, however, from dock and slip rents are pledged to the Sinking Fund, which is charged with the redemption, among other obligations, of said dock bonds, while the receipts from ferry rents are pledged to the Sinking Fund, which is charged with the payment of interest on said bonds.

Certain accounts receive credit from both appropriations and loans, as, for instance, the Fund for Street and Park Openings of the City of New York, wherein we find Local Assessments, Corporate Stock, Revenue Bonds Special, and a direct Tax in the annual budget, each carrying its quota of the aggregate provision to a common purpose under the operation of laws prompted by adequate reasons and collectively resulting in such a scheme of finance for this particular undertaking.

The total collections of Water Rates and Interest thereon in the Boroughs of Manhattan and The Bronx are deposited to the credit of "The Sinking Fund for the Payment of Interest on the City Debt," while the operation of the water system is provided for by appropriation. The surplus revenue of said Sinking Fund for Interest is transferred to the Sinking Fund for Redemption of the City Debt, and the surplus revenue of said Sinking Fund for Redemption is invested in General Fund Bonds, the proceeds of which are deposited to the credit of the General Fund and used for the reduction of taxation; while the Interest on said bonds is paid out of the General Fund and into the Sinking Fund holding them.

The foregoing are but a few of innumerable like instances of expedients perfectly justifiable and rendered mandatory by legal enactment, which go to prove the absence of the distinctions of Capital and Revenue as fundamental factors in municipal accounts, the interlocking complications and flexibility of which justify the conclusion that they constitute but a series of related trust funds and deal primarily with the receipts and payments incident to their several means and purposes.

Thus far the argument has been confined to the general or controlling accounts as contained in the comptroller's ledger, but there is another field of municipal accounts to be considered, namely, that which relates to the detail and action of specific departments, bureaus or undertakings separately regarded.

The Function of Departmental and Bureau Accounts.

The accounting system of every specific city department or subordinate bureau must reflect such department's separate and complete entity as well as function, for, notwithstanding that its transactions all clear through the General Accounts under such classification of elements as its returns through Accounts Current require and establish, the details of such upon its own books must mark as complete a revolution as if its existence were entirely independent, but including always, in the circle of action, an account properly expressive of its accountability as a factor to the whole, and which account is complementary to the controlling account or accounts on the General Ledger of the city dealing with such department or bureau.

The only principle germane to our subject to be developed in this connection is that while the General Accounts of the city reflect neither Capital nor Profits with respect to the value or earnings of public utilities the department accounts

should properly do so in certain instances. Municipal gas and electric plants, water works or street car lines, when acquired and operated by the city as Municipal industries, should be controlled by a system of accounts cast upon the same lines as those of similar private enterprises, and the distinction between Capital and Revenue should be made in precisely the same manner as is done by private corporations, with the exception that the city constitutes the sole proprietary interest and stands in the position of holding all the stock. This apparent recantation of the doctrine previously advocated in this paper arises from the fact that a municipality is not essentially an industrial enterprise, and when trading functions are undertaken by it they must be regulated and their operations reported by accounts conducted in accordance with that of private business, involving not only the underlying principles of Capital and Revenue, but also such relationship thereof as will justify either the continuance or abandonment by the city of such undertaking. For these reasons they are regarded in the light of a municipal enterprise isolated from the function of city government, but financed by the city treasury and underwritten by the public credit.

Let us follow the simple action of the accounts that would be raised upon the general books and department books incident to the construction and operation by the city of water works.

First:—Upon the General Books.

**Construction and
Operating Accounts
of Municipal Enterprises.**

The bonds issued for water construction should be charged to "Principal of the City Debt" and credited to "Water Bonds" in the full amount of the loan. The cash proceeds of said bonds would be credited to Water Construction Fund, creating a Letter of Credit against which drafts would be drawn for construction, and which fund would liquidate upon

the completion of the work. When the Loan or parts thereof matured "Water Bonds" would be charged and "Principal of the City Debt" credited, and the Cash Payment therefor would be charged to "Appropriation for Redemption of Debt" or to "Sinking Fund," as the case might be.

Appropriations for operation and the drafts thereon, pending the development of the industry and revenue therefrom sufficient for its purposes, would form part of the Departmental Budget and Tax Levy, while after the current Revenue exceeded the current Expenses a "Water Revenue Account" would receive credit for the Water Rates, to be charged with the operating expenses and annual application of surplus to either redemption of loan or reduction of taxation.

The former would comprehend all the General Accounts, and apart from those dealing with the Loan, would constitute merely Letters of Credit available for payment of related claims.

Second:—Upon the Department Books.

The proceeds of the bonds would be charged to "Construction Fund" and credited to "Water Loan" for the par value, and to "Premium Account" for the premium, if any.

The cost of erecting and equipping the works would be credited to Construction Fund and charged to the several Construction Accounts, classifying such expenditure under titles expressive of the distinctive parts or features of the work and the specific character of the properties created or assets acquired.

The redemption of the bonds, whether by direct taxation or by Sinking Fund installments, would ultimately result in a charge to "Water Loan" and credit to "Appropriation for Redemption," and when finally both the Construction Fund and Water Loan were liquidated the books would show the property values standing at the debit as assets and balanced by the appropriations

for Redemption, and Premium Account standing at the credit as liabilities. As the assets and liabilities, however, are merely nominal and are expressed only for purposes of record they may then be all cleared into a general resume and so disappear from the succeeding trial balances of the departmental ledger. Any preliminary "Appropriations for Operation" and all subsequent receipts for water service and other income would be charged to "Operating Fund" and credited to the several income accounts, classifying said receipts under titles expressive of their source, including "Appropriations for Operation" when active. The operating cost would be credited to the "Operating Fund" and charged to the several expenditure accounts classifying said expenditures under titles expressive of their nature and purpose. The surplus revenue over and above the requirements of operation, when realized and paid over to the City Treasury, would be credited to Operating Fund and charged to Surplus Revenues, which latter account would rank against the appropriations received and show the recovery by the city of its initial advances, and later by showing its relative volume to the sum of Interest on Loan, Reserve for Depreciation, and kindred considerations would measure the advantages or disadvantages of municipal management, as compared with private management of such industry as the city undertakes to engage in.

By bringing together the several Income and Expenditure accounts at the close of each fiscal period it will appear that the Income Accounts are balanced by the charges to Operating Fund and the Expenditures by the credits to Operating Fund, while the balance of the Operating Fund less any margin reserved will equal the Surplus Revenue transferred, so that by making the proper transfer entries all accounts will close with the exception of unliquidated items, leaving a full record but withal a clean slate, and all considerations of Capital and Revenue comfortably housed and out of the way.

The foregoing outline relating to the accounts dealing with municipal enterprises has, for purpose of illustration, been confined to a cash action, but as assets by way of accrued income, and liabilities upon admitted claims unliquidated, and constituting respectively the Trade Debtors and Creditors, will be a constant factor in the assets and liabilities, and require suitable provision in the accounts, certain individual and controlling accounts will appear in addition to those stated, as would also be the case in the accounts of a private water company, but it would be only *a matter of time to show their articulation with the accounts mentioned*, and it is unnecessary to do so in order to illustrate the point.

The properly accredited Municipal Balance Sheet.

The arguments herein regarding the underlying principles governing the General Accounts of a city are inseparably connected with and form part of our subject relating to the properly accredited Municipal Balance Sheet. In a former paper on this subject submitted by me at the first conference of this kind held by the Census Bureau, in November, 1903, I said, *inter alia* :

“The Public Works, Improvements and Utilities possessed by the community belong to the people and the Municipal Corporation is merely the keeper or trustee, possessing no right to sell or convert that would warrant their inclusion on a Balance Sheet designed for the purpose of expressing the related Resources and Obligations of an estate with the implied realization of the one for the liquidation of the other.

“In order that a Balance Sheet may have any excuse for being, a positive and essential meaning must attach to the balance stated thereon; and, therefore, the Balance Sheet of a Municipality must array on its opposite sides only such values as can be measured

and the difference between which represents the value of a significant and appreciable fact."

The Balance Sheets which of late years have appeared in certain municipal reports have apparently been created from an erroneous conception of the true status of a Municipality, comparing and confusing it with a commercial undertaking and arraying among the assets, in addition to cash and elements realizable, such items as the cost or the conceded values of parks, bridges, schools and other public buildings, water works and similar possessions, broadly designated as "Fixed Assets," "Capital Assets," "Unavailable Assets," etc., and arraying as liabilities the floating and funded debt.

The most recent development of a Balance Sheet cast on the lines referred to which has come to my notice classifies the "Assets" (?) of the city under review, as follows:

"Capital Assets."

"Fixed Properties."

"Remunerative and Realizable."

"Unremunerative but Realizable."

"Unremunerative and Unrealizable."

The Assets classed as "Remunerative and Realizable" we find to be the water works; the "Unremunerative but Realizable," parks, boulevards, public buildings and their equipment, and equipment of all kinds belonging to the city; and the "Unremunerative and Unrealizable" comprise bridges, street pavements, sewers, etc., and amount to fully forty-five per cent. of the whole.

The further the principle of accounting which leads up to a Balance Sheet such as referred to is exploited the more remote we are from the plane of reasoning to which we will ultimately have to return and the further deferred is the time when a "Municipal Balance Sheet" will be realized which will reflect underlying truths and show clearly to investors and taxpayers alike the assets and true status of the municipality.

**The floating Status
of a Municipality ;
how determined.**

The floating status of a municipality is determined by the difference between the Cash Funds and Realizable Assets, such as taxes, assessments, water rents and miscellaneous revenue, so far as contained in the books, on the one hand, and on the other by the Cash Liabilities upon warrants registered, claims admitted by the auditor, and contingent liabilities reported by the several departments, with due regard to preserving the proper relation between the Resources and Obligations so that the realization of the one would measure the means of liquidating the other ; the resultant balance would show the condition of the public trust with respect to its floating assets and liabilities at the date specified and indicate accordingly the deficiency to be met in the ensuing period or the surplus available for lessening the succeeding year's tax levy ; in short, such a balance would show what has been taken from or would be added to the Resources of the period following.

Under the Constitution of the State of New York the debt-contracting power of cities within its borders is limited to ten per cent. of the taxable value of the real estate subject to taxation within the corporate limits of the municipality, and it therefore becomes a matter of great importance to correctly determine the margin of credit yet available for issuing corporate bonds of the municipality ; and the determination of this important feature in municipal finance forms the subject of the second development of the Municipal Balance Sheet, arraying as liabilities the gross funded debt of the municipality less the amount thereof held by the sinking funds of the city itself, and on the other hand showing as the only asset possessed by the city the amount representing ten per cent. of its real estate subject to taxation. The resultant balance is what the municipal corporation may be fairly said to possess by virtue of its charter and functions, and

therefore constitutes the sole basis of its credit and the measure of its right to engage in future public undertakings.

**Comparisons of
Municipal Balance
Sheets framed on op-
posing principles.**

These opposing principles in municipal accounting as reflected by the two forms of balance sheets referred to herein were compared during the latter part of 1904 by the comptroller of one of our largest cities in such graphic parallel, in an official communication bearing on the subject, that I feel constrained to introduce the following excerpt therefrom:

(NOTE:—The words “new form” where used in the following quotation refer to the Balance Sheet advocated by D. MacInnes, at Washington, D. C., on November 19, 1903; while the words “old form” refer to the Balance Sheet of the opposing school.)

“The proposition has been considered and discussed of substituting this (new) form and method of accounting for these liabilities in place of the method now in vogue, which is to array against these liabilities as offsetting resources the property of the city, such as real estate, buildings and equipments, and then set forth the resultant balance, presumably as an exponent of a condition of the municipal trust or of the value of the city’s credit, of which it is neither.

“The main points favoring a substitution of this method of accounting for this phase of the city’s finance are as follows:

“First: The new form sets forth an alignment of resources and liabilities which are not only both of the same nature and actuality, but absolutely and specifically correlative.

“Second: In the old form there is an array of assets of no bearing or value towards the payment of the liabilities against which they are arrayed, or the payment of any other liability of the city. They do not even represent, as is supposed by some, the product of the liabilities.

“Third: The resultant balance as shown in

the new form sets forth a real condition in the finances of the city, the knowledge of which is important to their proper administration.

“Fourth: The resultant balance in the old form sets forth no appreciable condition or value whatever.

“Fifth: The new form displays every feature both of nature and purpose essential to a properly accredited balance sheet. It arrays values which are real, measured and correlative, and from which is deducible a condition necessitating thought and action. It constitutes, in a word, a proper co-ordination of financial data and values around a problem of municipal administration which is practical and useful.

“Sixth: The old form is simply an attempted amalgamation of heterogeneous values producing a resultant balance of no actual meaning, disclosing no condition of debt or value of proprietorship; but, on the other hand, by its use conceals a problem which is important and should be clearly set forth to those administering the finances of the city.

“Seventh: It may be added that the use of this new form and method in the past might have prevented entirely the deficiencies of resources which appear upon this balance sheet, or at least it would have prevented the concealment of this condition from the different administrations.”

**The Main Purposes
of a Municipal
Balance Sheet.**

The main object of a Municipal Balance Sheet should be to show (a) the floating status of the city and the possibilities of realization to liquidate current liabilities; and (b) to show clearly the legal margin of its borrowing capacity, so that the prospective bondbuyer and taxpayer alike may know at once the measure of its right to engage in public undertakings.

Can either of these essentials be deduced from a Balance Sheet which arrays as “Assets” the

properties of the city, of the people in common, none of which could be parted with and the city still carry on its governmental functions?

Do even those classed as "Remunerative and Realizable" possess any power or value towards the payment of any liability arrayed on the opposite side of the balance sheet? Its water works are essential to the health and well-being of its people and could not be "Realized" upon or parted with except at great detriment to the city's interests; and neither schoolhouses, police or fire stations nor any other of the public properties classed as "Unremunerative but Realizable" possess any power or value towards the payment of any debt of the city; neither could they be "Realized" upon or parted with by the city except at the expense of substituting others (in all probability of an improved character) in their place, and thus creating additional liability.

The very suggestion that a city might sell its water works, which is in a measure indicated by arraying such as a realizable and remunerative asset against its liabilities, is a backward step in these days of progressive municipal administration, when all cities of any note, even the heretofore lethargic London, are awakening to this prime necessity of possessing and operating their own water supply system.

Is the form of balance sheet in question any more than, in the words previously quoted, "simply an attempted amalgamation of heterogeneous values producing a resultant balance of no actual meaning, disclosing no condition of debt or value of proprietorship, but, on the other hand, by its use conceals a problem which is important and should be clearly set forth to those administering the finances of the city?"

The Municipal Balance Sheet which I outlined in the paper presented in 1903, and again advocate herein, would display every feature both of nature and purpose essential to a properly accredited balance sheet. It would array values,

real, measured and correlative, and from which would be deducible an actual condition. It would constitute a proper co-ordination of financial data and values around a problem of municipal administration at once practical and useful.

As an Appendix to the properly accredited Municipal Balance Sheet a statement showing on the one side the total cost of all city properties, such as public buildings, docks and ferries, water-works, etc. (as far as such could be ascertained from the records), and on the other, the current conceded values of the same, would throw some light on the administrative side of the question, and thus viewed would have its own interest, but to include the values of such as an integral part of the balance sheet proper would be, in fact, to repeat values that were already merged into and had become a part of the values of the taxable real estate of its citizens, and on which alone the credit of the municipality could be based and which measured its legal right to or precluded it from immediately engaging in further public undertakings.

If, on the other hand, the legal right of a municipality to engage in permanent improvements was to be determined by the so-called "Capital Surplus," as arrived at by arraying the cost of streets, sewers, parks, bridges, public buildings and equipment, etc., against the sum of the unliquidated liabilities incurred to meet the same, the resultant balance of which is stated as the Capital Surplus, such a course would probably emphasize a policy that is largely followed by British cities of making the future pay the total cost of all public improvements, and thus become a factor leading cities in the United States, as it has led many British cities, into inordinate increase in their public debt.

(Signed) DUNCAN MAC INNES.

New York, February, 1906.

Copy of paper read before a conference relative to Municipal Accounts, Reports and Statistics held at Washington, D. C., at the invitation of the Federal Census Bureau, on November 19th and 20th, 1903, by

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of New York.)

MUNICIPAL STATISTICS

Alternatives. There are three ways of regarding the expenditures of a city out of appropriation or general tax, each of which gives a different sum as the basis of statistical analysis and tabulation.

The first is the total appropriation to cover the current year's expenses as determined by the annual budget and provided by the tax levy.

The second is the total warrants registered for expenditure (less cancellations) and charged, not only against current appropriations, but also against the unexpended balances of former years' appropriations, extending back as many years as do the operations to which the expenditures apply.

The third is the total warrants paid by the Chamberlain or, what is the same thing, clearing through the banks, and while including such warrants as were drawn or registered in former years but did not clear until the current year, excludes contrariwise all warrants drawn in the current year, but which still remain unpaid at its close.

Cash Account Basis. It is at once obvious that in stating the city cash account, of which the funds lodged in the several depositories at the beginning and end of the year constitute the opening and closing items, only the latter expenditures, i. e., warrants actually paid, can be taken into consideration. It is also obvious that said actual payments provide the least accurate basis for a statistical recital of the city's actual expenditures for account of any specific fiscal year, because, while excluding a large registration of warrants at the close of a fiscal period which cannot possibly all clear until the ensuing period is well advanced and may, in many instances, remain outstanding until even a still subsequent date, there is included the payment of warrants drawn during the prior period and therefore of necessity applying to former years' business.

Warrants Registered Basis. Taking the next preceding basis, namely, the warrants registered during the current year, the same inaccuracy as that which attaches to the last basis still obtains, but in a lesser degree, for while all warrants drawn within the fiscal year are included, further warrants against the same year's appropriations remain yet to be drawn as the contingent liabilities ripen into admitted obligations, and at the same time there have been included warrants which, although drawn within the current period, were in settlement of obligations incurred during and relating to former periods, and for that reason were charged against the unexpended balances of former appropriations.

Budget or Total Appropriations for the Year, Basis. Coming now to the first basis, to wit, total appropriation for the fiscal year, the only drawback to its adoption as the closest approach to the actual expenditure for and on account of the

specific year's business is the possibility of over-provision and a consequent surplus after all claims thereunder have been satisfied, which, according to the procedure of the accounts of New York City, is transferred to the General Fund and applied to the reduction of subsequent years' taxation. This surplus should, normally, be something less than the difference between the full appropriation for and the warrants actually drawn during the same fiscal period, for the reason that in a city growing in population, wealth and requirements, the appropriations would naturally forge ahead of the actual needs, while the liquidation or clearance of warrants should fall a pace behind, the reasonable assumption being that the contingent liabilities subject to future settlement, and the outstanding warrants subject to future clearance at the end of each fiscal period would increase at a ratio compatible with the increase of volume of the city's business. This, however, is not altogether borne out by the accounts of the City of New York for the year 1902, for the reason that the transfer of surplus balances of former years' appropriations to the General Fund was a sort of housecleaning performance, and accumulations during the five years since consolidation, 1897-1901, written off in the amount of \$1,422,764.82, equal the difference between the total appropriation for and the actual warrants paid in 1902, and, in fact, a trifle in excess of that amount, the precise figures being as follows :

Appropriations for the year 1902..	\$98,619,600.88
Warrants registered, less cancellations, 1902	97,638,556.14
Warrants paid by Chamberlain, '02	97,231,937.55

The main question before us is, therefore, the selection of a basis for compiling tables of the city's expenditures from among the three just described, viz :

**Classification of
Budget; Warrants
Registered; and Cash.**

If we select the first, or budget basis, it becomes merely a matter of analyzing and classifying the budget, and if the form in which it is prepared is selected with this purpose in view the work could be accomplished with comparative ease, while the Comptroller's accounts treating with the warrants actually registered, and the Chamberlain's accounts treating with the warrants actually paid, in so far as appropriation accounts are concerned, would in no way enter into the calculations. We are confronted, however, by the unpleasant fact that we are predicating our results upon the initial provision and not upon the actual needs, and are, therefore, overstating the expenditure in the amount of the ultimate surplus, overlooking, besides, the extensive transfers or alterations in the application of appropriations which are continually being made by the Board of Estimate and Apportionment. On the other hand, we have the advantage of including the year's contemplated business in its full measure without regard to when it may ultimately clear, and although stated in a more liberal sum than will finally tally up, still so close thereto that for all practical purposes there is little sacrifice of truth and none of intelligibility.

If we select the second basis, or warrants registered, it becomes a matter of analyzing the Comptroller's accounts, and bringing the various items under such a classification and into such significant groups as will best meet the purpose of the statistician and convey the maximum of desired intelligence. In this instance we have the Comptroller's books to back us up, for, while the arrangements of the tables may be such as to reflect less of technical detail and more of popular concern than the city's books as they stand, the compilation, if conducted along scientific lines, need lose none of the feature of proof or demonstrability, and while presenting a different

face be readily traced back to and agreed with its original source. It must not be lost sight of, however, that while we are now nearer to the total figure of the city's expenses, and, in fact, closer than in any other method, we are further from its true analysis or allocation than in the preceding instance. We are stating expenses of some departments which had been abolished before the fiscal period in question began, and are omitting expenses of departments newly created, which, although accurately provided for in the budget and incurred in the course of current business, have not reached the stage of audited and admitted claims; and, further, as in the preceding operation, we are still outside the circle of cash transactions which are controlled and marked by the actual funds in bank on the first and last day of the period covered.

The third and last basis, i. e., the actual cash outlay or warrants paid, involves in its adoption the most difficult work, but possesses the advantage of confining the results within the action of the cash account per se, the completeness and accuracy of which are guaranteed and fixed by the opening and closing balances of cash funds, and presents the only proper form of accounts and unassailable statements of conclusions for embodiment in an annual report of a Comptroller or other fiduciary officer. While its limitations are obvious and require no apologies for being such, there is nothing to prevent parallel and concurrent statements of all residuary or unliquidated values, so prepared and reconciled therewith that any detail may be expanded from the net cash sum to the full and complete volume, and both of the preceding ranges of action can be deduced by merely adding and deducting the qualifying elements disclosed by said collateral statements. This plan involves the greatest labor, for the reason that the total appropriation, the warrants registered, the warrants outstanding, the intervening transfers or reap-

plication of balances, and the unexpended surplus must all be determined and related before the warrants paid or net cash expenditure can be positively proven and safely declared; so that, while the last basis reflects in the least degree, by itself, the true outlay specifically applicable to a given period, it tracks the action most fully and in its entirety affords means of determining all significant facts upon any and all premises.

Expenditures from Assessments, Bond Proceeds, and Special Revenues.

In treating with special and trust expenditures, by which is meant all not made out of appropriation or general tax, but out of proceeds of bonds, assessments, or other revenue, the first basis recited does not in any way enter into the argument, and the choice of treatment lies simply between the warrants registered for payment and the warrants actually paid. In the case of special and trust accounts dealing rather with public undertakings than with government expenses, little significance attaches as to which plan is adopted in statistical reports; the warrants registered represent the outlay during a stated period, and the warrants paid conform to the action of the cash account; but apart from the latter consideration the accounts bear no particular relation to a fiscal period, and are continuous from the raising of the funds to the clearance of the last warrant drawn against them. The life of the trust is the time required to erect the building, construct the works, or effect whatever end the account deals with, and until the last settlement with respect thereto is made, whether the period covers a month, a year, a decade, or, as in the case of certain street improvements and similar accounts, rolls on from year to year an endless series of like undertakings, each fund may fairly be regarded as one subject of accounting from first to last.

**Medium between
Accounts and
Statistics.**

As there is a growing tendency to break away from the restrictions peculiar to the accounts in preparing municipal statistics for the comparison of different cities working under dissimilar conditions and nomenclature, and—ignoring charter provisions and accounting procedure—to reclassify receipts and disbursements under a general uniform plan, great care should be exercised to prevent the accounts and the statistics relating to any municipality from becoming so divorced as to render the latter merely arbitrary memoranda, untraceable to the former or source from which it originates. This danger at once suggests to the accountant the importance of a medium between the accounts and the statistics by which they can be co-ordinated, in spite of the dissimilarity of their expression and the impossibility of immediate comparison. Such medium would naturally be the Comptroller's annual report, wherein all of the three bases before stated for measuring the annual outlay could be correlated and articulated, and either one or a modification thereof could be selected for statistical compilation upon popular lines, and still preserve a proof of accuracy and chain of reference from the simplest of statistical tables to the most complex of working accounts.

This brings to the front two important facts: First, that the degree of excellence that attaches to the nomenclature and order of the disbursement accounts of any city has its beginning in the care and scientific instinct that is exercised in framing the departmental estimates, as from these estimates the budget is prepared, and from the budget is derived the titles and arrangement of the specific appropriation accounts under which all disbursements out of taxation are marshalled and aligned; second, that the income of every municipality comprehending certain general sources, alike in all cities, and certain miscel-

laneous sources teeming with items peculiar to each should, particularly with respect to the latter feature, be reduced to a classification under significant groups in such a manner as to admit of comparison of kindred elements between one city and another, and establish an order of prime items which would follow in uniform sequence for all alike.

**General or Broad
Classification of
Expenditures.**

Returning to the subject of disbursements we find them in the first place provided for in the annual budget, covering what are broadly designated "government expenses," comprising fire, police, school, and all other department salaries and contingencies, State tax, charities, interest, redemption, and what not. In the second place we find them provided for by proceeds of bonds issued upon the city's credit, and covering what we will call for convenience "public undertakings," comprehending street and park openings, buildings, bridges, subways, monuments, and all manner of public improvements. Besides these, emergencies constantly arise calling for outlay in whole or in part, of the nature of either of the foregoing, as for instance, equipment, repairs, or property immediately required and properly payable out of taxes, but for which, not being anticipated, no provision was made in the budget—such expenditure is provided for by means of special revenue bonds, redeemable out of the succeeding year's tax levy, which, together with revenue bonds issued in anticipation of the collection of taxes and the permanent loan, constitute the principal of the city debt.

**Related Receipts and
Expenditures.**

Certain miscellaneous revenue, not pledged to sinking funds or applied to reduce taxation, is used directly for meeting correlative outlay; as for instance, receipts from permits for tearing up streets may

be applied to the cost of restoring and repaving. In this manner we might go through the whole length of the subject, showing numerous expenditures in whole or part provided for by specific revenues, but the foregoing is sufficient to show the complexity of the subject and the necessity of a radically different, although equally scientific, treatment of the subject for statistical tabulation from that which of necessity attaches to the active accounts.

Distinction in Accounts and in Statistics.

It may be a matter of little importance to the statistician of what particular moneys a payment is made, or to what particular purpose a receipt is pledged. The distinction between a payment out of appropriation or out of a bond fund is often purposely ignored, and expenditures for like purposes, although differently provided for, are blended and classified by him as one and the same thing. On the other hand, distinctions which the accounts fail to regard are absolutely imperative to the statistician; revenue which the accountant can treat in the aggregate because but one receiving officer and one account are affected, must be separated by the statistician into its dissimilar components to meet a necessary statistical classification.

The allied sciences of accountancy and statistics must be studied in their relation to each other; the accountant must strive to meet the statistician's needs and preserve distinctions which the accounts alone would not require; while the statistician although free from the legal and fiduciary considerations governing the accounts, must retain the facilities for proving his work which they afford, and always endeavor to preserve as much of the action and articulation of the accounts as may be compatible with the paramount object he has in view.

(Signed) RICHARD M. CHAPMAN.

Paper read at a Conference of Comptrollers and other Fiscal Officers and Accountants, held at Washington, D. C., on February 13th and 14th, 1906, under the auspices of the United States Census Bureau, by

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GOVERNING DISTINCTIONS IN MUNICIPAL ACCOUNTS

WITH SPECIAL REFERENCE TO THEIR CLASSIFICATION
AS REFLECTED ON THE BOOKS OF THE COMP-
TROLLER OF THE CITY OF NEW YORK

Primary Distinctions The first idea which instinctively dominates the act of classifying accounts is the recognition of opposites with respect to a governing consideration, and the first distinction to be apprehended is accordingly dual, or as between the two extremes of a significant point of view.

After thus establishing a primary differentiation each of the factors is in turn subdivided into its primary components, constituting a secondary differentiation, and so on, by succeeding developments, retaining, however, the duplex scheme of analysis so far as the principle advantageously obtains, before breaking up into the final and multiplex analysis which marks the point at which diametric distinctions disappear and the individuality of each account or minor group constitutes it a class by itself.

Distinction between Sinking Fund and City Treasury.

In the annual report of the Comptroller of the City of New York the first broad distinction to be observed is reflected on Table II (page 2), showing separately the total volume of transactions of the Sinking Fund and of the City Treasury respectively; the Sinking Fund being restricted to the specific purpose of redeeming the city debt by such provision, while the City Treasury is applicable to all other purposes, including redemption by direct taxation or through reimbursements by local assessments. This distinction, both of title and purpose is emphasized in the city's procedure and on the Comptroller's books by the separate organization and administration of each of said grand divisions of the city exchequer.

Following on Tables III and IV (pages 3 and 4) the transactions of the Sinking Fund are again divided with respect, first, to receipts and payments, and, second, to investments acquired and disposed of, and coincidentally the action of both the cash and securities is analyzed and expressed according to the several elements and operations involved.

City Treasury, Appropriations, Bonds, Etc.

Coming now to the City Treasury—Table V (page 5), which bears more directly on our subject, it will be seen that a primary distinction again claims first consideration, namely, as between (a) transactions predicated upon Taxes and Appropriations and (b) transactions not so predicated. To be more specific, the first (a) relates to the moneys expended from the several appropriations made in the annual budget in accordance to which the annual tax levy is determined, and the second (b) relates to expenditures out of funds provided by issue of bonds, levies of local assessments, water rents, or from receipts of the numerous and varied revenues of the city not pledged to the Sinking

Fund. The funds raised by annual tax are in the main provided to meet the general running expenses of the City Government, including State tax, current interest, and redemption of debt, either directly or by Sinking Fund instalments accrued, while the funds raised by bonds, assessments, water rents and miscellaneous revenues are in the main provided or used to meet the outlay incident to public works, improvements, maintenance and such operations as are financed by related revenues or emergency expenses ordered by law or resolution.

This distinction permeates every part of the city's accounts, and two kinds of warrants are registered for payment out of the City Treasury, namely: "A" warrants, chargeable against "Appropriation Accounts" or budget credits, and "B" warrants, chargeable against "Special and Trust Accounts," which latter title covers all City Treasury accounts (other than appropriation) against which warrants are charged, or to which any revenue or receipts, other than what relate to appropriation, are credited.

Expenses of the City Government and Outlay for Public Undertakings.

Of the expenditures made by "A" warrants, the State tax and the interest on and redemption of the city debt, because of their radical character, are separately expressed, while all other expenses classified on the schedules of appropriation accounts under the titles of departments and bureaus, and the subtitles of divisions and purposes, are broadly regarded under the comprehensive designation of "Expenses of the City Government."

Of the expenditures made by "B" warrants, the refunds of imposts and fees, and payments on account of the interest and principal of the city debt, are for the reason just stated given separate expression, while all other expenditure covering construction, maintenance, operation, administration of trust funds, and every conceivable

able purpose indicated under the elaborate classification of Special and Trust Accounts, is broadly regarded under the comprehensive designation of "Outlay for Public Undertakings."

Segregation of INTER SE Transactions. All transfers of credit between "Appropriation Accounts," or between "Special and Trust Accounts," or from accounts of the one kind to accounts of the other, are segregated from the aggregate charges and credits, and stated apart from the income and outgo per se.

Appropriation Ledger The method of handling the Appropriation Accounts is essentially simple. One controlling account in the General Ledger registers the aggregate action of the multitude of specific appropriation accounts which form the classified contents of the Appropriation Ledger, each succeeding calendar year giving rise to both a controlling account and ledger dealing exclusively with said year's appropriations, and the classification adopted follows the order of the annual budget, which in turn derives its form and specifications from the departmental estimates upon which the Board of Estimate and Apportionment bases the sums allowed.

General Ledger. The method of handling the Special and Trust Accounts is, alternatively, extremely complicated, and, with the exception of three controlling accounts (operated in the General Ledger to treat collectively with the numerous specific accounts peculiar to the respective Boroughs of Brooklyn, Queens and Richmond, as they severally were constituted prior to consolidation, and which specific accounts in liquidation form the contents of Borough ledgers), all other Special and Trust Accounts are each and every one a separate General Ledger Account, and the variety of sub-

jects therein registered, both with respect to character of receipts and object of payments, and articulation of accounts related, are so multifarious that prior to the adoption of the present plan of stating the annual report no comprehensive scheme of classifying these accounts was attempted.

The classification of "Special and Trust Accounts" undertaken for the first time in the annual report for the year 1902, repeated in the report for 1903, here before us, and now in course of preparation for the year 1904, forms the subject of Statement 8, the preceding summary of which appears on page 47, and the foregoing remarks have been merely preliminary to the primary purpose of this paper, which is to elucidate the substance, form and purpose of said Statement 8.

Analysis of Special and Trust Accounts.

The structure of this statement is based upon the expedient of employing, simultaneously, both the process of analysis and of synthesis, and while the accounts are each and all reduced to their common or fundamental elements by the division and distribution of controlling totals among a series of analytical columns, affording proof of accuracy by the equation of accounting opposites, the accounts are also classified according to the similarity of their individual character and purpose by the order in which they are written, grouping them first according to their more specific nature or narrowest classification, and bringing kindred groups together to express the more general or broad classification reflected in the grand summary. By this means the two processes react, one upon the other; the elements and the extent thereof which are chiefly involved in each class of accounts, as well as the classes which contribute and the volume of their contribution to the activity of each element are shown severally and collectively. For in-

stance, the element "Assessments" is seen to relate in the main to the broad classification "Construction," and in a further analysis principally to construction of streets and sewers. The element "Water Rents" relates solely to the class "Operation;" the element "Receipts Subject to Refund" to the class "Trust Fund;" while the element "Bonds Issued" plays into every class of accounts operated.

The statement is presented in two parts—Part I, Receipts and Ledger Accounts; and Part II, Payments and Warrants. Each part displays the same schedules of classified accounts, but differs in the two analyses of elementary facts peculiar to itself, which, although related, nevertheless exhibit separate and distinct equations.

Passing over, for the time being, the synthetic feature of the statement governing the order and classification of the accounts under their ledger titles, and which is largely a matter of selection and expression, and considering first the analytical feature comprehended by the captions and equations of the columns distinguishing the several fundamental elements, we will observe that there is practically no latitude in determining what shall be considered as fundamental elements, but, on the contrary, they constitute distinctions which we are bound to recognize if we would truthfully report the facts. In the first place, the transfers of credit, whether received into or paid from the accounts in question, are purely inter se transactions, and accordingly constitute the only like element in the first equation of both parts of the statement under the main caption, "Transfers by Warrant," and sub-caption of "Appropriation Accounts," "Special and Trust Accounts" and "Sinking Funds," severally indicating from or to which kind of accounts the stated credits were derived or applied respectively.

Apart from the inter se transactions, the characteristic elements of the receipts and payments are found to consist of the following:

Elements Constituting Receipts and Elements Constituting Payments.

Part I. Receipts comprehending collections of (a) Assessments, (b) Water Rents; (c) Items subject to Refund; (d) Par Value of Bonds Issued; (e) Premiums on Bonds Issued; and (f) Miscellaneous Revenue, the latter comprising the innumerable details of licenses, rents, fines, fees, penalties, permits, sales, interest, and what not, fully analyzed in Statement 5, but which it is impractical to regard individually in any general statement without at once destroying its broader significance.

Part II. Payments, comprehending (a) Refunds of taxes, assessments, water rates, excise, bail, interest, etc.; in short, all moneys paid back to the parties from whom it was originally received; (b) Redemption of the City Debt; (c) Interest on the City Debt; and (d) all other outlay, which is designated as hereinbefore stated, by the broad term, "Outlay for Public Undertakings."

The secondary equations or series of analytical columns treat respectively, in Part I with the charges, credits and balances of the Ledger Accounts, and in Part II with the warrants drawn, cancelled, paid and outstanding, the debit and credit elements cross-casting to a centre or balancing total. The Ledger Summary (Part I) establishes the debit and credit balances at the beginning and end of the year under review, the interim charges divided as between warrants registered and journal items, and the interim credits divided as between cash receipts and journal items, the latter including also warrants cancelled as void after registration. It is here to be noted that the Cash Receipts forming an item on the credit side of the Ledger Summary or second equation are the same as in the total

or controlling column of the analysis of receipts forming the first equation of the same part.

The Summary of Warrants (Part II) establishes the Warrants Outstanding or unpaid at the beginning and end of the year under review—the Warrants drawn during the year; the Warrants cancelled, and the Warrants paid by the City Chamberlain during the year. In this instance it is to be noted that the Warrants paid and forming an item on the credit side of the Warrant action or second equation correspond in amount to the total or controlling column of the analysis of payments forming the first equation of the same part, while the Warrants registered as stated in the Ledger Summary (Part I) are the same in amount as the Warrants drawn as stated in the Summary of Warrants (Part II).

**Main Purposes of
Special and Trust
Accounts.**

Returning now to the classification of the Special and Trust Accounts, they are finally reduced to seven general heads, namely: (1) Construction, (2) Equipment, (3) Maintenance and Repairs, (4) Operation, (5) Trust Accounts, (6) Claims and Judgments, and (7) Miscellaneous. All excepting the first, i. e., Construction, represent schedules of Ledger accounts, whereas Construction is reached in the procedure by summarizing preceding summaries reflecting two prior developments; and retracing our process we find that Schedule I—Construction—is the combination of seven Construction Schedules, J to P, viz., (J) of Buildings; (K) of Bridges; (L) of Streets; (M) of Sewers; (N) of Water-works; (O) of Parks; and (P) of Sundries. Of these again, all but the first, i. e., Buildings, are schedules of Ledger Accounts not further classified, whereas Schedule J, Construction of Buildings, consists of fifteen groups of accounts showing separately and re-

spectively the construction of (1) Schools, (2) Museums, (3) Libraries, (4) Monuments, (5) Baths, (6) Hospitals, (7) Charity, (8) Correction, (9) Markets, (10) Armories, (11) Fire Engine Houses, (12) Halls and Courts, (13) Police Stations, (14) Docks, (15) Rapid Transit (subway, stations and terminals).

In the Construction of Buildings is included the acquisition of sites, as well as the erection of buildings thereon.

In Equipment are included fitting up and furnishing public buildings, fire alarm and telegraph systems, fire engines and boats, street signs, horses and trucks, and tools for Street Cleaning and other departments, indexing records and kindred items.

In Maintenance and Repairs are included painting, repairing and remodeling public buildings and other structures, restoring and repaving streets, repairing sewers and water pipes, dredging and, in short, all outlay looking to continued efficiency of property or works already possessed or in use.

In Operation are included the expense of Special Boards and Commissions, the conduct of water works, and various extraordinary outlay by the Departments of Education, Health, Fire, Police, etc., either financed by related revenues or by the issue of revenue bonds. The revenue bond funds for increase of salaries, for support of night schools, for expenses of conducting criminal proceedings, for the removal of snow and ice, are fair samples of the latter class.

In Trust Accounts are included such items as Police Pension Fund, Fire Department Relief Fund, Public School Teachers' Retirement Fund, Intestate Estates, etc., all being funds held and administered by the city in the interest of associations and individuals in whom are vested the titles or rights to said moneys.

Claims and Judgments require little explanation; such accounts as Revenue Bond Fund for

Claims, Long Island City Judgments, Payment of Claims of Volunteer Firemen of Westchester County, and similar accounts arising from compromise or the issue of legal actions against the city are classified under this head.

Miscellaneous comprises a large variety of accounts which, although yielding to analysis, defy more specific classification. They relate principally to receipts of interest, fees and other miscellaneous revenues; receipts subject to refund, and proceeds of bonds issued in anticipation of the collection of taxes, and to payments of refunds, interest and principal of the City Debt, and other exceptional and dissimilar items which cannot consistently be otherwise classified.

Trial Balance. Having thus established controlling figures for all the "Special and Trust Accounts" collectively, it becomes merely a matter of introducing the remaining General Ledger accounts in order to complete the circle of action and demonstrate the equilibrium of the General Ledger by producing a trial balance as at the beginning and as at the end of the calendar year.

These remaining accounts constitute three main groups, comprising Schedules X, Y and Z (page 50), and termed respectively, Controlling Accounts, Fiduciary Accounts and Complementary Accounts, which are appended to the Summary of Ledger Accounts, Part I, and conjointly therewith produce the opening and closing trial balances marked (a) (a) and (b) (b), respectively.

The Controlling Accounts, Schedule X, thus bring into the equation the aggregate action of the Appropriation Ledger, the Warrants Drawn Accounts "A" and "B," the receipts and application of General Fund Revenues, and the Collection of General Tax.

The Fiduciary Accounts, Schedule Y, in like manner introduce the Cash or City Chamber-

lain's accounts, the Collector of Assessments and Arrears, and the Receiver of Taxes; and lastly, the Complementary Accounts, Schedule Z (although comprising related groups displaying equal aggregate debits and credits, which could therefore be either included or excluded from the equation without disturbing the balance of the accounts) complete the full exhibit by including therein the aggregate action of the Sinking Funds, the Principal of the City Debt, Special Accounts of the Comptroller, Chamberlain, Paymaster, and Collector of City Revenue, with related accounts operated as auxiliary analysis of moneys in escro or in transit between the primary accounts wherein the transactions ultimately rest.

While the classification of the complicated aggregation of accounts included under the term "Special and Trust" and numbering several thousand distinct Ledger accounts, is reflected only in this Statement 8, the analysis thereof as effected by the columns employed will be found to correspond with the significant generalities reflected on Table V (page 5) dealing with the City Treasury, whereon against the title "Special and Trust Accounts," on the payment side, direct reference is made to Statement 8, and on the receipt side reference is made to separate specific statements which, although dealing more minutely with the receipts, reflect the same elements as those developed in the analysis herein described.

While the principle here analyzed recognizes only the distinction as between "A" and "B" warrants, it appears that one Special and Trust Account, entitled "Additional Water Fund," and forming one of the Water Construction Accounts, by reason of the magnitude of the payments made thereunder, has had allotted exclusively thereto a separate Warrant Register and a separate series of warrants which are known as "C" war-

rants, and for that reason both Table V and Statement 8 are seen to read "B" and "C" warrants instead of simply "B" warrants.

FINAL Distinctions Established. This is merely an incident of detail and in no way need confuse

the principle here laid down, which is, that the distinction as between the Sinking Funds and the City Treasury, and as between Appropriation Accounts and Special and Trust Accounts as hereinbefore described, and as between analysis according to elements, and classification according to subjects, is of too vital importance in accounting and reporting municipal transactions for them to give way to any system of accounts or scheme of reports that will obliterate their significance or cause them to disappear from the expression of results.

(Signed) RICHARD M. CHAPMAN.