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Mechanical system of budgetary control accounts adopted by the city of Knoxville, Tenn.

George G. Scott

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Scott, George G. and Scott, Charnley & Co., "Mechanical system of budgetary control accounts adopted by the city of Knoxville, Tenn." (1925). *Individual and Corporate Publications*. 173.

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OF
BUDGETARY CONTROL ACCOUNTS

Adopted by the
CITY OF KNOXVILLE, TENN.



It is a simple, intelligent and scientific application of the theory of accounts and budget accounting by process of book-keeping by machinery which revolutionizes old accounting methods in economy, completeness and quickness of the information produced.



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OBSERVER PRINTING HOUSE, CHARLOTTE, N. C.

*MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

BY GEORGE G. SCOTT, C. P. A.

The City of Knoxville, Tennessee, adopted the Managerial Form of Government effective at the beginning of its fiscal year, October 1st, 1923. Hon. Louis Brownlow was appointed City Manager.

Mr. Brownlow ranks as one of the foremost Municipal Managerial Experts of the country. He came into prominence as a City Manager some years ago when the President appointed him as one of the three Commissioners who are the administrative managers of the City of Washington, D. C., and the District of Columbia. After serving in that capacity for several years he was called by the City of Petersburg, Virginia, to fill the position of City Manager at the time that City adopted the Managerial Form. It was while serving in this capacity that the City of Knoxville called him to fill a similar position.

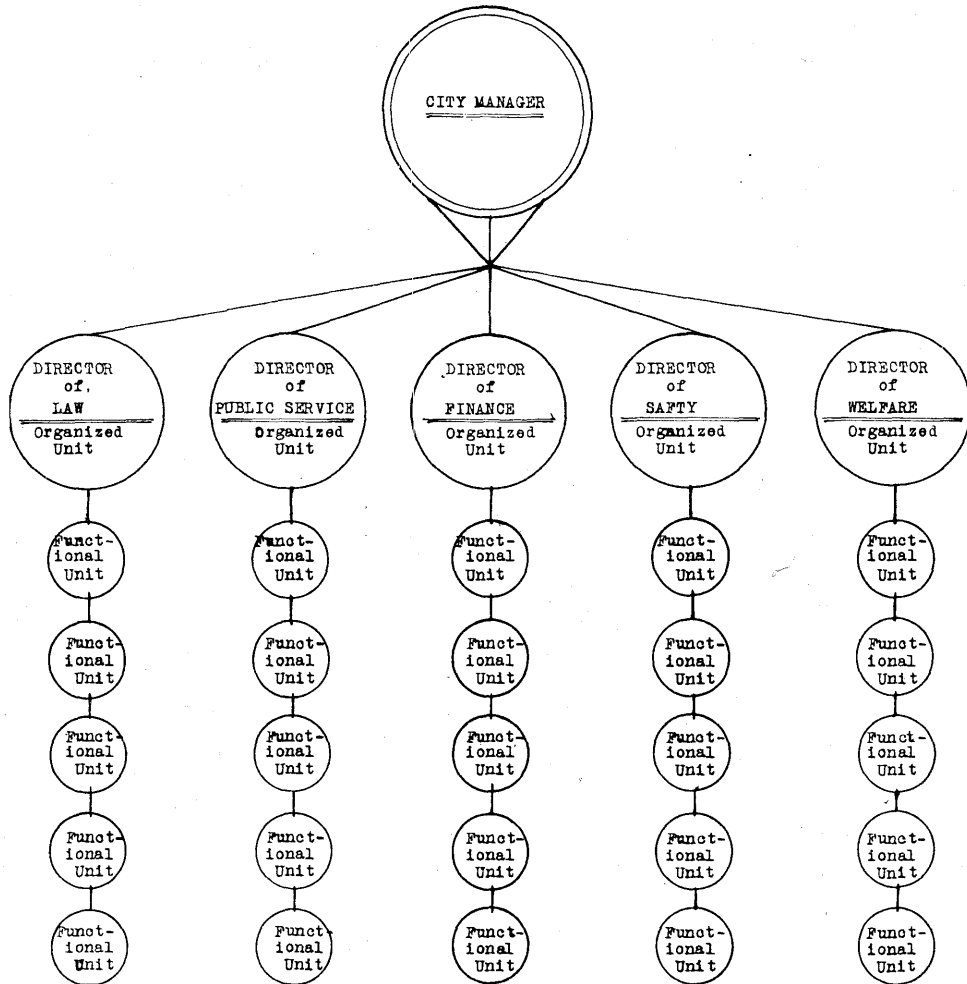
The New Managerial Form of Charter adopted by the City of Knoxville provides for the election of eleven members of the City Council by the voters of the City. The City Council has authority to appoint only one City official—the City Manager.

The City Manager has full and complete authority to organize the administration. He has authority under the provision of the Charter to appoint five Directors who are the departmental heads of the City Government which are as follows—Director of Finance, Director of Public Safety, Director of Public Service, Director of Welfare and Director of Law. The City Manager and the five Directors constitute the Administrative Cabinet of the City.

When the new City Manager took charge, one of the first problems confronting him was to have an adequate system of

*This system was devised and installed by the Municipal Department of the firm of Scott, Charnley & Company, Certified Public Accountants, Charlotte, North Carolina. Mr. Scott prepared this paper for the regular monthly meeting of the staff members of his firm.

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS



accounts installed that would conform to the plan of organization and meet the administrative requirements, which were as follows:

1. The system must conform to the charter provisions and the plan of administrative organization.
2. It must include a complete system of Budget Accounts that will show the various accounts of the appropriations against which the expenses and obligations, including open market orders, contracts, and other commitments, are charged daily.
3. The system must provide for simple and practical methods for the office of Purchasing Agent.

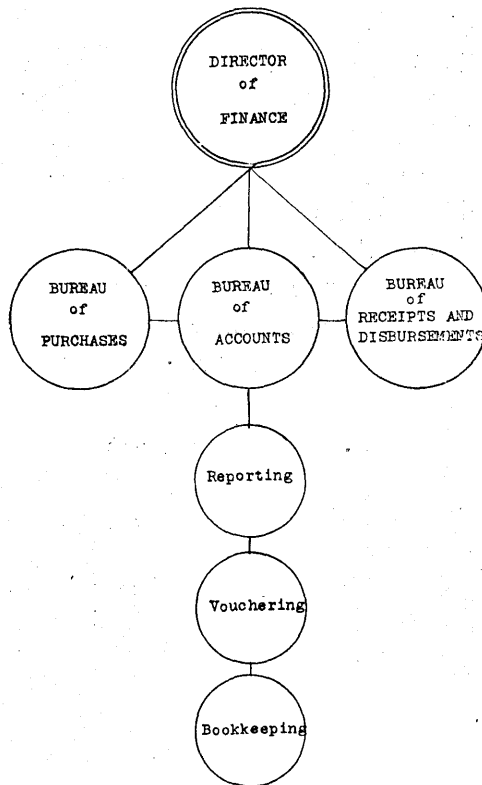
MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

4. The books and accounts to be devised so as to show the operating and financial information that may be required, covering all Funds and Departments of the City Government in accordance with modern accounting procedures.

5. The books to comprise a centralized system of General Control Accounts that would control all of the operations of all of the Departments, Functions, and Funds of the City, to be maintained in the Bureau of Accounts under the supervision of the Director of Finance.

6. The installation to include a system of departmental reports to be made daily to the Bureau of Accounts, showing the daily transactions affecting the accounts, and daily financial reports prepared from the books and submitted to the City Manager and the Administrative Directors.

7. The system to be simple and economically maintained.



The system was devised and installed in the Bureau of Accounts and met all of the requirements in every particular. The entire transactions of all of the departments that involve the necessity of an account record being made thereof, are furnished the Bureau of Accounts daily on especially prepared forms.

Upon receipt of these daily reports they are audited and vouchered. The voucher provides for a complete and full explanation of the transactions and the accounts to be charged and to be credited, divided as to Funds, Organized Units, Functional Units, and Object Accounts.

Every account affected is shown on the voucher so as to facilitate the automatic machine posting work. The account keeping is in effect a perpetual closing of the books. As soon as the vouchers representing the transaction of the day are posted to the various accounts, the Daily Financial Statements are immediately prepared and submitted to the City Manager, which is done during the day following the date of the departmental reports.

The Daily Reports to the City Manager contain all information required for administrative purposes, including the condition of every Departmental Appropriation Account. The information daily presented to the City Manager in these daily reports during the year enabled him and his Directors to so economically administer the fiscal affairs of the City and govern the Budget Commitments that the success of the administration is clearly reflected in the final results of the year as shown by the annual audit which shows that, in effect, there was a saving of \$465,295.81, and may be summarized as follows:

<i>First</i> —There was returned to the taxpayers during the year 10 per cent. of the total taxes assessed to meet the expenses, amounting to	\$280,000.00
<i>Second</i> —An unencumbered balance of the Budget appropriations remained after the year closed, to be carried forward to the next year, after all expenses and obligations, including outstanding market orders had been provided for, amounting to	42,393.35
<i>Third</i> —A reserve was set aside to meet the payment of the open market orders outstanding at the close of the year that had not been filled, or the goods had not been received, amounting to	142,902.46
Total	\$465,295.81

These results are unusual and may be unprecedented in Municipal Management.

The following statement of Mr. Brownlow appeared in the September issue of "City Manager Magazine":

"The ten per cent. tax refund, voted by the Council of the City of Knoxville to taxpayers on account of the tax levy of the current year, had the effect of reducing the tax rate from \$2.44 to \$2.196. When the City Manager Charter came into effect at the beginning of Knoxville's fiscal year, October 1, 1923, the council was faced with the immediate task of preparing a budget. It had only the experience of former administrations to guide it. Taking the expenditures of the previous fiscal year as a basis, the council made up a budget which involved a reduction of \$500,000.00 in expenditures. Then they estimated the revenues and levied a tax rate of \$2.44 to balance the budget.

"When I assumed the duties of city manager at the middle of December, I began immediately the installation of an improved accounting system. As the units of this system were installed, improvements in collections began to be manifest, and the assessments of new buildings and of personal property as well as of mercantile stocks began to increase.

"There was no general assessment of land values this year.

"By the middle of June the new financial system began to produce daily reports which clearly indicated that there would be a surplus in revenues. On the 26th of July, this surplus, after setting up adequate reserves for errors in assessments, slow collections and the like, amounted to more than \$300,000.00.

"Thereupon, I recommended to the council that a ten per cent. refund in taxes be ordered, which was done.

"Last year the tax rate was \$1.90, but, based on the existing assessments, the tax rate should have been \$2.93, to meet the expenditures actually made, which produced a deficit in round number of \$1,000,000. This year the tax rate was fixed at \$2.44 to balance a reduced budget, and now we find that by reason of under-estimated revenues and over-estimated expenditures, we can close the year with a surplus with a tax rate of \$2.20. It would have been easy, of course, to have retained all the surplus, but this probably would have encouraged extravagant expenditures, and the council agreed with me that it was better to make the refund direct to the taxpayers."

1—THE OLD SYSTEM OF MUNICIPAL ACCOUNTING

The old methods of municipal accounting, which may now be found in many municipalities, both large and small, consist only of records of receipts and disbursements, and do not show transactions not represented by a flow of cash, as against the New System that shows the expenses and revenues.

A system based upon receipts and disbursements shows that the expenses and the revenues as recorded in the current period may belong wholly or in part to another period, as against the New System that shows only the expenses belonging to the period, whether paid or unpaid, and only the revenues belonging to the period, whether collected or uncollected.

The old system consists of records that show disbursements in the current period instead of the expenses of that period, and shows the receipts of current period, instead of the revenues belonging to that period.

Such a system is nothing more than the Treasurer's Cash Books, the statement from which make a misleading guide for administrative purposes, as against the New System of Accounts that is kept upon an accrual basis, and shows the expenses and revenues belonging to the period, a statement of which will exhibit a correct view of operations, and becomes an important administrative guide.

The old method of municipal accounting does not include a properly maintained system of budget accounts. The Budget is not set up in the books of account, and is therefore not an important part of the system, as against the New Budgetary System of Accounts that provides for the daily maintenance of all appropriation accounts, and is the principal and most important part of the system.

In the old way of keeping municipal accounts no account record is maintained of the commitments, such as open market orders and contracts that affect the appropriations, as against the Budgetary System that provides for the immediate charge to the respective appropriation accounts of all commitments of every character, so that the balances of the appropriations may be shown at all times as "Unencumbered."

Statements prepared from cash book records as representing the conditions of current funds are frequently not only incorrect, but conspicuously misleading, as against statements prepared from the new system of accounts that exhibit a correct view of condition, and are of dependable value for administrative purposes.

Overdrafts and deficits in Funds, as well as floating indebtedness in many cases, have been traceable directly to an inadequate system of cash book accounts. Failure and criticism of administration in some cases are attributable to inadequate accounting methods.

The audits of municipal books and accounts kept under the old method have been in many cases expensive, due to the amount of work involved in constructing various statements necessary in presenting the required information, and to the absence of a proper internal check in the system.

The City of Knoxville, prior to the adoption of the Managerial Form of Government, was not unlike a number of other important municipal corporations throughout the country, in that it had a very incomplete and inadequate system of accounts. It was largely, if not entirely, based upon the system of receipts and disbursements. The accounting methods and account keeping were practically the same as they were a few years ago, when the City was a big country village. Its books did not exhibit accurate information of the condition of the various funds.

The financial condition of the City was not known further than what an inadequate system of accounts, based upon receipts and disbursements, exhibited.

2—OUTSTANDING ADVANTAGES OF THE NEW MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

The new system devised and installed for the City of Knoxville, Tennessee, is what may be termed as a "Mechanical System of Budgetary Control Accounts." It is Mechanical because the entire bookkeeping work is done by machinery. The only writing necessary is the signatures on the vouchers. It is a Budgetary System because the Budget Ledger and Budget Accounts repre-

sent the most important part of the system. It consists of a large number of control accounts necessary in the various divisions of accounts, which are divided by Funds, Organized Units, Functional Units, Operating Ledgers, and Proprietary Ledgers. The books and records necessary for the entire system are:

- A—REPORTING SYSTEM—consisting of daily reports from all departments and organized units, showing the daily transactions affecting the accounts, which are transmitted every day to the Bureau of Accounts.
- B—VOUCHER SYSTEM—consisting of three distinct vouchers: Disbursing voucher, Receiving voucher and Journal voucher. These vouchers are prepared by the voucher clerk after the audit of the departmental daily reports, from which the vouchers are made.
- C—CODING SYSTEM—comprising a special method of coding all transactions, classifying same as to Funds, Departments, Functions, and Objects.
- D—LEDGER SYSTEM—comprising a distinctive arrangement of the various ledgers of the proprietary, operating and Budget accounts of all funds, which are contained in steel-covered cases on movable stands with locks and keys.

All bound books are eliminated. The vouchers are so devised for the journalization of the transaction and explanation of same, that it takes the place of Cash Book Records, Register of Receipts, Register of Disbursements, and Journals.

If it is desired, however, to have these in bound book form, the vouchers may be classified and bound in permanent book form at the end of the fiscal period. The ledger cards may also be bound in book form at the end of any fiscal period.

Under the system of account keeping the transactions of all departments of the City Government are vouchered and posted into the books to the various ledger accounts during the day following the dates of the transactions. Immediately after the completion of the postings of the vouchers, financial and budget reports are prepared from the books and submitted to the City Manager, which constitutes an accounting photograph of the business transactions of all departments and the effect upon the finances of the city.

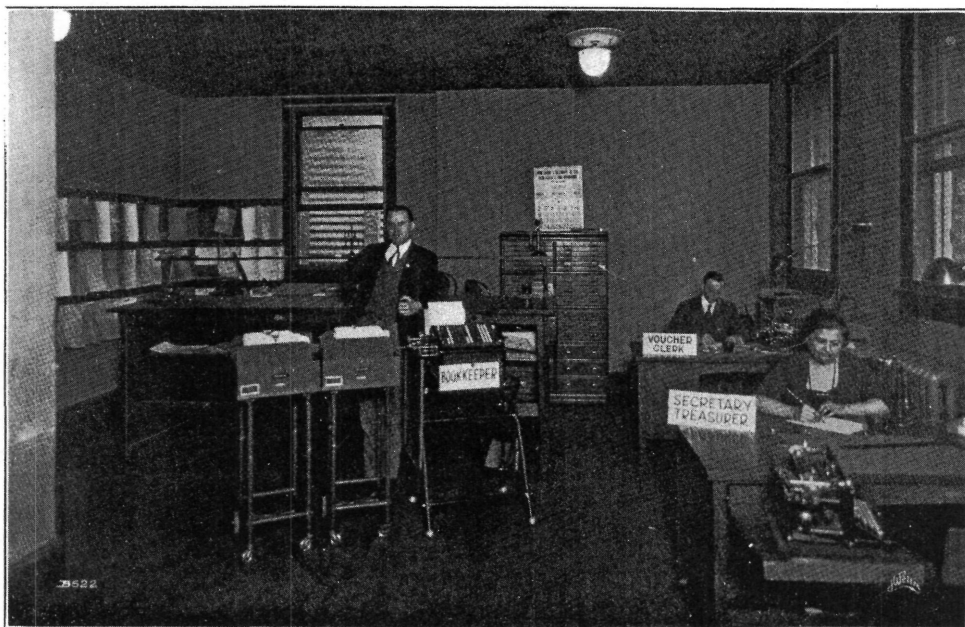
Another important advantage is the reduction of the clerical work involved in keeping the books, as compared under the old methods. In one City the reduction was estimated as high as fifty per cent. The auditing expense is also materially reduced. In one City that installed the Mechanical Budgetary System, the saving in the expense of auditing the books after installation more than paid the entire cost of the installation.

In another City the auditing expense was reduced to nearly fifty per cent. of the cost of former audits.

In the matter of the clerical work required for the keeping of the books it is estimated that it would require less than one-half of the clerical labor it would require to produce the same information under the old methods.



SCENE IN THE TREASURER'S OFFICE OF THE CITY OF ASHEVILLE BEFORE THE INSTALLATION OF THE NEW SYSTEM



SCENE IN THE TREASURER'S OFFICE OF THE CITY OF ASHEVILLE AFTER THE INSTALLATION OF THE NEW SYSTEM

3—VALUE OF THE BUDGET AND BUDGET ACCOUNTING

The Charter of Knoxville requires a budget to be prepared and the City to be operated under budget authorizations. Mr. Brownlow, who is an unusually experienced City Manager, would not undertake the managership of any City that did not use the budget system. A municipality cannot be successfully managed, or its fiscal affairs properly and intelligently administered, without the guidance of a budget system of accounts. Under the system of budget accounts such as has been installed in the City of Knoxville, overdrafts or over expenditures of appropriations cannot be made or incurred without the immediate knowledge of the City Manager, the Director of Finance, or—in case of purchases—both the Purchasing Agent and City Auditor would know whether

or not any commitment would produce an overdraft in a budget account.

The annual budget of the City of Knoxville is prepared with great care. The City Manager is fully aware, as well as the heads of all departments, that the budget system of accounts is the pilot-wheel of the Administration. Without it, it would be impossible to intelligently and successfully steer the City Ship. The daily budget reports are their steering chart. The budget is first prepared by Departments. Each Director prepares his own tentative budget and submits same to the City Manager.

After the City Manager has in hand all of the departmental budgets, after full deliberation—and perhaps many conferences with his directors, he then prepares the entire budget of the City, which he submits to the City Council for their consideration.

When it is introduced in the City Council a copy is given to each member of the Council for study, and at a subsequent session of that body the budget is finally enacted into a Municipal Statute, and becomes the legal authority for the expenditures necessary in the operation of the City Government. The budget is first divided into organized units, and each organized unit is divided further into functional units. The organized units are as follows:

- 50—Debt Service
- 100—General Government
- 200—Department of Finance
- 300—Department of Law
- 400—Department of Public Safety
- 500—Department of Public Service
- 600—Department of Welfare
- 700—Department of Libraries
- 800—Department of Schools
- 900—Department of Water Works
- 1000—Department of Hospitals

Each of the Departments or organized units is divided into functional units. The functional units are the functional accounts of each organized unit. To illustrate: The Department of Public

Safety, which is an organized unit, is divided into the following functions:

- 401—Administrative Expenses
- 402—Police Force
- 403—Fire Force
- 404—Inspection Bureau

If it is necessary, the budget can be further divided into what is called "object accounts." That is, a functional account can be split up into object accounts and carry the appropriations into as many smaller units as may be necessary. However, for practical purposes, it is not advisable to divide the appropriations into smaller accounts than the functional units. There are about 100 functional units which, if the appropriations are divided as to functional units, would mean the same number of separate and distinct appropriation accounts. The entire budget authorizations of the City are, as stated, first divided as to the eleven organized units, and no unexpended appropriation can be transferred to another organized unit without the action of the City Council.

When any adjustments or transfers from one appropriation account to another are made, such adjustments go through the books and the accounts are adjusted accordingly, in order to keep the accounts absolutely correct at all times. It should be understood that the budget accounts constitute a separate and distinct ledger, which ties into, and is a part of, the entire system. The operating expense accounts, and the operating revenue accounts of the general fund, carry the same names and numbers as the budget accounts for both the organized and functional units. The differences in the balances of these accounts and the balances shown in the budget accounts of the same name represent the market orders outstanding. When a market order is issued, it is immediately charged against the proper appropriation account; which is not entered into the operating expense account until the order has been filled, invoice made, and invoice paid or set up on the books. The budget ledger consists of what is known as "Budget Control Accounts" as well as individual appropriation accounts. The following is a skeleton balance sheet of the budget control accounts, showing the explanation of each account:

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

BALANCE SHEET
BUDGET CONTROL ACCOUNTS

DEBITS	CREDITS
<p>BUDGET REQUIREMENTS CONTROL ACCOUNT \$.....</p> <p>The total amount of revenues required to meet the Budget Authorizations is charged to this account. The total amount of the revenues collected or ascertained and set up on the books is credited to this account. The balance of this account means the amount of revenues required to meet Budget Authorizations.</p>	<p>BUDGET AUTHORIZATIONS CONTROL ACCOUNT \$.....</p> <p>This account is credited with the total Budget Authorizations and charged with the total expenses and obligations, including open market orders placed, contracts made or other commitments. The balance of this account means the total unnumbered balance of appropriations.</p>
<p>STORES INVENTORY CONTROL ACCOUNT \$.....</p> <p>The total amount of all materials and supplies purchased for Stores, when received is charged to this account. The total amount of Stores consumed by the various departments is credited to this account. The balance of this account means the inventory of materials and supplies on hand.</p>	<p>RESERVE FOR OPEN MARKET ORDERS CONTROL ACCOUNT \$.....</p> <p>This account is credited with all open market orders placed, and charged with the amount of the orders when filled and goods have been received. The balance of this account means the total amount of Open Market Orders Outstanding.</p>
<p>STORES IN TRANSIT CONTROL ACCOUNT \$.....</p> <p>The total amount of purchase orders placed for Materials and Supplies for the Stores is charged to this account. As soon as the orders have been filled and goods received this account is credited. The balance of this account means the total amount of Store Orders Outstanding.</p>	<p>RESERVE FOR PAY ROLLS CONTROL ACCOUNT \$.....</p> <p>This account is credited with all labor and salaries that may be due and accrued and not paid, and charged with the total of such labor and salaries when paid. The balance of this account means the total Labor and Salaries due and accrued and not paid.</p>
<p>AVAILABLE SURPLUS CONTROL ACCOUNT \$.....</p> <p>This account is charged with all collected revenues, and is credited with all expenses authorized by the Budget. The balance of this account, if a debit, means a "Cash Surplus" or that the actual revenues collected exceeds the total expenses. If the balance is a credit it means an Overdraft, or that the expenses exceed the cash collected from revenues.</p>	<p>RESERVE FOR INCOMPLETED CONTRACTS CONTROL ACCT \$.....</p> <p>The total contracts are credited to this account, and the payments on the contracts are charged. The balance of this account represents the total incomPLETED contracts outstanding.</p>
<p>UNAPPLIED SURPLUS CONTROL ACCOUNT \$.....</p> <p>This account is charged with the revenue assets set up in the books, such as the Taxes Abstract, Water Department Accounts Receivable, etc., and credited when such accounts are collected. The balance of this account means the total uncollected revenue assets that have been set up on the books.</p>	<p>RESERVE FOR INTEREST ON BONDS, BOND PAYMENTS AND SINKING FUND CONTROL ACCOUNT \$.....</p> <p>The total monthly apportionment of the Bond Interest, Bond Payments & Sinking Fund payments are credited to this account monthly, and all payments are charged to this account. The balance of this account means the total accrued Bond Interest, Bond Payments, and Sinking Fund Payments.</p>
<p>TOTAL \$.....</p>	<p>TOTAL \$.....</p>

It will be seen from the above balance sheet of the budget control accounts that there are two separate and distinct surplus accounts of the budget. One is the "Available Surplus," which represents a cash balance; and the other the "Unapplied surplus," which is not cash but the amount of uncollected revenue assets. The "Available Surplus" is charged with all actual cash collected from revenues or revenue assets, and credited with all expenses and obligations to be paid from the budget authorizations. If

this account has a debit balance it means a surplus, and no necessity may exist for borrowing funds in the anticipation of the collection of taxes. On the other hand, if this has a credit balance it shows that the cash actually collected from revenues and revenue assets is insufficient to meet the operating expenses authorized by the budget, and the necessity of borrowing funds in anticipation of the collection of taxes exists. The "Unapplied Surplus" means in all cases the uncollected revenue assets, such as uncollected taxes, accounts receivable of the Water and Hospital Departments, and all other revenue accounts receivable, that belong to Budget accounts.

The accounts called "Budget Authorizations Account" and "Budget Requirements Account" are set up at the time the annual budget is adopted by the City Council. The "Budget Authorizations Control Account" is credited with the total amount of the Budget and the "Budget Requirements Control Account" is charged with the same amount. The "Budget Authorizations Control Account" shows the total amount of money authorized to be expended according to the budget. This is reduced by all market orders and other commitments immediately when the transactions are made, so that the balance of this account means the balance unencumbered. If an order is made for the purchase of supplies for any of the departments to go direct to the department, or any departmental requisitions filled from the stores, or any other expense authorized by the budget, it is immediately charged against the balance of the "Budget Authorizations Account," and "Reserve for Market Orders" is credited, or whatever account that may be affected in the budget. The "Budget Requirements Control Account" is reduced by revenues actually collected or revenues actually determined and set up on the books, so that the balance of this account means the amount required to be collected or ascertained to meet the budget. A statement of the budget control accounts is possibly one of the most important statements, and carries with it more general condensed information than any other statement that may be prepared. A state-

ment of the budget control accounts is issued daily, and the City Manager knows at a glance his total unencumbered balance of appropriations, the amount of revenues ascertained and collected, the amount of open market orders outstanding, the condition of the "Available Surplus Account," whether the cash being collected from revenues is ample to meet the expenses, and the "Un-applied Surplus Account," which shows the uncollected revenue assets.

4—PURCHASING AGENT OR BUDGET DIRECTOR

It is necessary to have a Purchasing Agent or Budget Director in the administrative organization of the City. In some cases it may be advisable to have both a Budget Director and a Purchasing Agent. When provision has been made for both officials, the Budget Director would have complete charge of the budget and budget accounts, and the Purchasing Agent would be a bureau in the Budget Director's Department. In the plan of organization of the City of Knoxville a Budget Director is not provided. The Department of Finance is under the Director of Finance, which includes the Purchasing Agent, Bureau of Accounts, and Bureau of Receipts and Disbursements.

The Purchasing Agent is an unusually important official in the organization of the City Government. All supplies and materials for all departments of the City are purchased by the Purchasing Agent. The procedure covering the execution of a purchase is as follows: Any head of a department desiring supplies or materials is required to make a departmental requisition to the Purchasing Agent on a special printed form. This requisition is made in duplicate; the original is sent to the Purchasing Agent, and the duplicate or copy is retained. The requisition order should show the quantity and description and be coded in such manner as to indicate all of the accounts affected by the transaction. As soon as the Purchasing Agent receives the re-

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

<small>FORM 144</small> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">1</div>	<p>CITY OF KNOXVILLE, TENN.</p> <p>DEPARTMENT OF</p> <p>BUREAU OF</p> <p>DEPARTMENTAL REQUISITION</p> <p>TO PURCHASING AGENT</p>	<p>REQUISITION No.</p> <p>DATE ISSUED</p> <p>DATE WANTED</p> <p>APPROPRIATION ITEM</p> <p>SEND TO</p> <p>AT</p> <p>VIA</p>
<p>I HEREBY CERTIFY THAT THE ARTICLES NAMED IN THIS REQUISITION ARE NECESSARY FOR USE OF THIS BUREAU.</p>		<p>APPROVED</p>
<small>REQUISITIONER</small>	<small>HEAD OF BUREAU</small>	<small>DIRECTOR</small>

DESCRIPTION	CODE	QUANTITY AND UNIT WANTED	ESTIMATED COST		DO NOT USE THIS COLUMN	
			PRICE	AMOUNT	ORDER NO.	VENDOR

THIS SPACE RESERVED FOR PURCHASING AGENT

quisition he will first ascertain if the appropriation balance warrants the purchase or the filling of the order. If the balance of the appropriation is not sufficient to meet the expense or obligation, the requisition cannot be filled either from the storehouse or by purchase. On the other hand, if the appropriation balance justifies the obligation, the order may be filled either from stores, if in stock or, if not on hand, it will be purchased. In the case of a purchase being made by the Purchasing Agent, he prepares a purchase order consisting of five copies, to be used as follows:

PURCHASE ORDER

- No. 1—Copy for Vendor.
- No. 2—Copy to be retained by Purchasing Agent until order is filled.
- No. 3—Copy to bookkeeper of budget accounts.
- No. 4—Copy to Requisitioner.
- No. 5—Copy to City Manager.

The Vendor must render two separate invoices for all purchase orders filled, one to follow the goods to the department with the delivery, and the other to be mailed to the office of the Purchasing Agent. As soon as the Purchasing Agent receives the invoice, he attaches same to his copy of the purchase order and holds the file until he receives a report from the requisitioner, or the storekeeper, that the goods have been received. When the requisitioner, or the storekeeper, receives the goods, the Purchasing Agent is immediately notified on either a special receiving form or by the return of the requisitioner's copy of the purchase order signed, showing that the goods have been received. When the Purchasing Agent receives the notice that the goods have been delivered, he attaches that notice to the invoice and his copy of purchase order, which makes a complete file of that particular purchase, which is turned over to the City Auditor for audit, and the preparation of a voucher for payment. If the invoice is different in amount from that named in the purchase order, which may frequently occur, the Purchasing Agent notes such differences upon a form known as "Adjustment of Purchase Orders" and sends this form to the bookkeeper for making the proper adjustment entry in the budget accounts.

The bookkeeper of the budget accounts receives a copy of every purchase order as soon as it is made, and immediately posts same to the various accounts affected. It is very essential to immediately post all purchase orders, as the appropriation accounts are continually being referred to by the Purchasing Agent, because he cannot fill an order unless the appropriation balance is sufficient to meet the obligation.

There are two distinct classes of purchase orders. One class is what is known as "store purchase orders," and the other is known as "non-store purchase orders." These orders are distinc-

tive because they are treated differently in the budget accounts. The "store purchase order" does not affect the budget appropriation accounts. It is only when the supplies or materials are consumed, or are shipped direct to departments on "non-store orders," that the appropriation accounts are affected. The "store purchase orders" affect the following accounts in the budget ledger:

STORES PURCHASE ORDERS ISSUED

- 1—Stores in transit account is charged.
- 2—Reserve for open market orders account is credited.

When the goods which have been ordered for stores have been received, the storekeeper reports them as received to the Purchasing Agent, and the Purchasing Agent sends his completed file to the Auditor for payment, and a posting voucher is made by the Auditor affecting the following accounts:

STORES ORDERS—MERCHANDISE RECEIVED

- 1—Reserve for open market orders account is charged.
- 2—Stores inventory is charged.
- 3—Stores in transit account is credited.
- 4—Available surplus account is credited.

In the case of the "non-stores orders," that is, purchase orders for shipments to go direct to the department or requisitioners instead of going to the store, the bookkeeper of the budget accounts would post to the following accounts:

NON-STORE PURCHASE ORDERS ISSUED

- 1—Budget appropriations control account is charged.
- 2—Organized Unit appropriation account is charged.
- 3—Functional unit appropriation account unit is charged.
- 4—Reserve for open market orders account is credited.

Both the organized unit and functional unit appropriation accounts are in the subsidiary division of the budget ledger, which accounts for three charges and one credit. When the goods of this class of purchase orders are received by the department or requisitioner, he immediately reports the delivery on the receiving form to the Purchasing Agent, and the Purchase Order File

is transmitted to the City Auditor, who prepares a voucher for payment that affects the following accounts:

GOODS RECEIVED NON-STORE PURCHASE ORDERS

- 1—Reserve for open market orders account is charged.
- 2—Available surplus account is credited.

In a case of departmental requisitions that are filled from the store on account of having the goods on hand and no purchase is made therefor, the storekeeper reports to the Purchasing Agent the filling of the order, who makes a posting voucher, which shows the following accounts affected:

REQUISITIONS FILLED FROM STORES

- 1—Budget appropriations control account is charged.
- 2—Organized unit appropriation account is charged.
- 3—Functional unit appropriation account unit is charged.
- 4—Stores inventory account is credited.

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

FORM 15A

1

CITY OF KNOXVILLE, TENN.
OFFICE OF
PURCHASING AGENT

ORIGINAL COPY
PURCHASE ORDER

THIS COPY TO VENDOR

ORDER NO.

DATE ISSUED

DATE WANTED

REQUISITIONER

REQ'N. No.

APPROPRIATION ITEM

To

DELIVERY INSTRUCTIONS

SEND TO

AT

VIA

TERMS

DESCRIPTION	CODE	✓	QUANTITY AND UNIT	PRICE	AMOUNT OR ESTIMATE
MAKE INVOICE IN DUPLICATE; SEND ONE COPY WITH GOODS AND MAIL OTHER TO PURCHASING AGENT. PLACE ORDER NUMBER ON INVOICES.					

CONDITIONS—READ CAREFULLY

1. Please acknowledge receipt of this order by return mail.
2. Make invoice in duplicate; send one with goods and mail the other to the Purchasing Agent.
3. Each shipment should be covered by a separate invoice.
4. The right is reserved to cancel this order if it is not filled within the contract time.
5. The conditions of this order are not to be modified by any verbal understanding.
6. Charges for boxing and cartage will not be allowed unless previously agreed upon.
7. If the price is stated in the order, material must not be billed at a higher price.
8. Acceptance of this order includes acceptance of all terms, prices, delivery instructions, specifications and conditions stated.
9. IMPORTANT: Invoices and packages must bear this ORDER NUMBER.

THERE IS A BALANCE TO CREDIT OF PROPER APPROPRIATION OR FUND TO MEET THE EXPENDITURE COVERED BY THIS PURCHASE

AUDITOR

PURCHASING AGENT

5—CODE, AND CODING EXPENSE AND REVENUE TRANSACTIONS

One of the most important features in the entire accounting system is the Code and the work of coding the classifications of the expenses and revenues. The Code is of fundamental importance. For purposes of facilitating the work of bringing into the books of account all transactions made by all of the departments, it is necessary to properly code or tag every account the transaction affects. The Code is a standardized and scientific arrangement of the character, function and object of every transaction. The symbols used for coding the transaction consist of a number, a dash, a letter, a dash, and a number, thus: 402-A-2. The first number, "402," has two distinct references. It signifies the transaction belongs to a certain organized unit number 400 and a certain functional unit number 402. All of the code numbers of the Director of Safety are in the 400 classification. Therefore, the number "402" indicates that it belongs to the Department of Public Safety, which is an organized unit, because it is within the series of numbers assigned to that department. It also indicates the Police Force, as this functional unit is Number 402. The letter "A" indicates that it is a personal service expense; that is, it is either salaries or wages. The number "2" indicates the particular classification of the salaries or labor; that is, whether it is a monthly payroll, weekly payroll, salaries of clerks, or office help, etc.

The entire expense and revenue transactions are first divided into organized units, the accounts of which are kept in the operating ledgers are of the same names and numbers as the accounts in the Budget Ledger, as follows:

- 50 Range—Debt Service.
- 100 Range—General Government.
- 200 Range—Department of Finance.
- 300 Range—Department of Law.
- 400 Range—Department of Public Safety.
- 500 Range—Department of Public Service.
- 600 Range—Department of Welfare.

- 700 Range—Department of Libraries.
- 800 Range—Department of Schools.
- 900 Range—Department of Water Works.
- 1000 Range—Department of Hospitals.

The above division is in accordance with the charter provisions of organization and municipal accounting procedure.

The next division is the Functional Units of each of these organized units. For illustration: the organized unit of Public Safety, in the case of Knoxville, has only four Functional Units, as follows:

- 401—Administrative Expense.
- 402—Police Force Expense.
- 403—Fire Force Expense.
- 404—Inspection Bureau Expense.

In the case of other cities, the Functional Units may be more in number, or less, as may be desired.

The Department of Public Service has, in most cases, more Functional Units than any other particular Department. In the case of Knoxville, there are eleven organized, and about 100 functional, units. The Code carries further division of accounts. All of the expenses chargeable against budget authorizations and all revenues affecting the budget requirements control account are divided into the following object groups:

EXPENSES

- A—Personal service, which includes salaries and wages of all kinds.
- B—Contractual service, which cover all expenses of a contractual nature, such as advertising, discounts, freights, telephone and telegraph, power purchased, professional services, and various repairs by contract.
- C—Supply expenses which cover all character of supplies.
- D—Material Expenses, which includes the large and heavy materials, such as Asphalt, Brick, Lumber, Stone, etc.
- E—Fixed Charges, Grants, Refunds, Contributions and replacements, which include all kinds of insurance interest, rents, refunds, replacements and donations.
- F—Capital Outlays, which includes all kinds of personal and real properties, purchased or acquired.

The revenues are also classified as to object groups and may be grouped as follows:

- J—Taxes, Licenses and Fees.
- K—Water Works Income.
- L—Hospital Income.
- M—Assessments for Public Improvements.
- N—Interest, Rents and Discounts received.
- O—Municipal Court Income.
- P—Sale of Properties.
- Q—Donations, Gifts and Subventions.

A detailed object classification of each of the groups may be arranged and divided into as many "object accounts" as may be desired. The following will illustrate the detailed "object accounts" of two of the groups:

A-PERSONAL SERVICE

- A-1 Salaries of Mayor and Council
- A-2 Salary of City Manager
- A-3 Salary of Directors
- A-4 Salaries of Bureau Heads
- A-5 Salaries of Clerks, Bookkeepers and Stenographers
- A-6 Salaries of Specialists and Technitists
- A-7 Monthly Pay Rolls
- A-8 Weekly Pay Rolls
- A-9 Salaries of Janitors

B-CONTRACTURAL SERVICE

- B- 1 Accounting and Reporting
- B- 2 Advertising
- B- 3 Boarding Prisoners and Patients
- B- 4 Court Costs
- B- 5 Commissions on Bond Coupon payments
- B- 6 Discounts
- B- 7 Decorating Buildings
- B- 8 Exchange
- B- 9 Freights, Drayage and Express
- B-10 Lights and Gas
- B-11 Laundry Service
- B-12 Periodicals and Subscriptions
- B-13 Printing Signs
- B-14 Power Purchased
- B-15 Professional Service
- B-16 Recording Deeds
- B-17 Repairs, Furniture and Fixtures
- B-18 Repairs, Machinery
- B-19 Repairs, Autos and Trucks
- B-20 Repairs, Fire Alarm System
- B-21 Repairs, Buildings
- B-22 Repairs, Work Tools
- B-23 Sign Painting
- B-24 Traveling Expenses
- B-25 Taxi and Car Fare
- B-26 Telegraph and Telephone
- B-27 Water and Ice Purchased

The remainder of the other groups, both expenses and the revenues, may be similarly divided into object Accounts.

As illustrating how a particular transaction is coded the salary of the Chief of Police would be coded as follows: First, all salaries are personal service expenses. We therefore look in the code under "Personal Service Accounts" and find that the classification of the salaries of Heads of Departments would be A-4, and it is also noted that the Police Department is in the organized unit of the Department of Public Safety, which is within the 400 classification, and by looking at that range of numbers it is seen that 402 is the Police Force. This would therefore be coded as follows: 402-A-4.

All Heads of Departments who are authorized to make requisition on the Purchasing Agent for supplies and materials are given a copy of the Code, so that every requisition that is made will be properly coded. The payroll clerk, with the assistance of the timekeepers, will also see that the payrolls are properly coded. The revenues reported daily from all the departments must, in all cases, be coded. In other words, everything must be coded that comes to the Bureau of Accounts. The coding is audited by the Auditor the same as any other part of the transaction, and by this method there are less errors made in coding and classifying. It will be seen that, by this method of coding, it requires a minimum amount of numbers and symbols as compared with some of the other methods. For illustration: every telephone and telegraph expense is No. B-26, found under "Contractual Service Expense." It is the 26 account in the code under "Contractual Service Accounts." Thus No. B-26 would be used for all telephone and telegraph expenses in any functional unit in the city. The functional unit number would be distinct, and separate one from another, but this expense object would always carry the same symbols.

There may be special forms used for special purposes. The City of Asheville uses the following form, which is attached to every payroll:

tion and is detachable, one end of which shows the classifications and accounts affected, is for the bookkeeper or machine posting operator; and the other end showing the copy of the Treasurer's warrant, is for making an alphabetical index for the files.

In some cities the voucher is made with a bank check attached. When the voucher is written, the check is also drawn and sent to the Treasurer for signature. The Treasurer detaches the bank check and keeps the copy of the voucher as the stub for his files. The voucher, however, may be devised to meet the requirements without destroying the principle. All vouchers in this system are divided into blocks for coding purposes, as follows:

A—First Block—The first block at the top of the voucher is the "Subsidiary Ledger Postings" block for entering all expense and revenue accounts and the amounts affected by the transaction.

B—Second Block—The second block is the "Budget Ledger Postings" block for entering all of the Budget Accounts and amounts that are affected by the transaction.

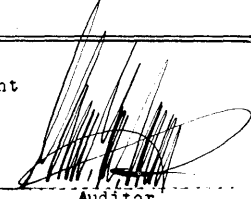
C—Third Block—The third block is the "Proprietary Ledger Postings" block for entering all accounts and amounts of the Proprietary Ledger that are affected by the transaction.

D—Fourth Block—The fourth block is for recording the explanation and approval of the transaction.

The following is an illustration of an Auditor's Voucher showing the accounts and the coding of a payroll of the Street Cleaning Department. It will be seen that every account in every ledger is shown that the transaction affects. It is seen that when this voucher is posted, the books are closed, so far as this voucher is concerned. In each one of the divisions, the names and amounts of all accounts are shown that the transaction affects.

In the explanation space, it will be seen a sample of explanation of the transaction. The carbon copy of this voucher will be attached to the Payroll and go to the files. The original goes to the machine posting operator and is filed numerically.

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

A U D I T O R ' S V O U C H E R			
A	Charges	SUBSIDIARY LEDGER POSTINGS	Credits
	<u>GROUP LEDGER CONTROL "A"</u> \$ 276.50 <u>DEPT. LEDGER CONTROL 500</u> 276.50 <u>OBJECT LEDGER CONTROL 510</u> 276.50 <u>Foreman's Salary 510-A-4</u> 30.00 <u>Other Weekly Sal'ys 510-A-8</u> 246.50		
B	Charges	BUDGET LEDGER POSTINGS	Credits
	<u>BUDGET APPROPRIATION CONTROL ACCOUNT</u> \$ 276.50 <u>Appropriation Account 500</u> 276.50		<u>AVAILABLE SURPLUS CONTROL</u> \$ 276.50
C	Charges	PROPRIETARY LEDGER POSTINGS	Credits
	<u>GENERAL FUND MASTER CONTROL OPERATING EXPENSES</u> \$ 276.50		<u>CITY TREASURER CONTROL</u> \$ 276.50 <u>Treasurer General Fund</u> \$ 276.50 <u>First National Bank</u> \$ 276.50
D	EXPLANATION AND APPROVAL		
	Weekly Pay-Roll of the Street Cleaning Department covering week ended November 6th 1924 \$276.50 Approved by Street Foreman, Time Keeper and Director of Public Service-		
		 Auditor	
	DATE Nov 7th 1924		NO. 334

When this voucher is posted to the various accounts in the ledgers shown, it is in effect a closing of the books—as contrasted with the old distribution voucher which after it has been prepared, is entered in the voucher register which may be a columnar record, and at the end of the month the Register will be totaled, and the totals posted into the accounts before a final trial balance can be taken. With this voucher and the machine posting method, the usual monthly entries are entirely eliminated.

There is no more bookkeeping work to be done, so far as the general books are concerned at the end of the month than at any other day during the month. When the business of one day is posted the daily statements may be prepared from the final trial balance, just as is done at the end of the month under the old methods. This makes it possible to close the month in one or two days after the last day of the month, instead of 10 to 15 days or even longer that may be required under the old method.

It will be clearly seen that a voucher so devised as to journalize the transaction by showing all accounts that are debited and all accounts that are credited together with a detail explanation of the transaction, successfully and satisfactorily eliminates all subsidiary records, such as cash books, voucher registers, journals and other bound book records.

It also eliminates the usual duplicate work, and reduces the bookkeeping and clerical work to a minimum, which in some cases has amounted to 25 to 50 per cent.

The system in its entirety revolutionizes the old bookkeeping methods by a scientific application of modern procedures in an intelligent systemization of the present methods.

7—LEDGERS OF THE MECHANICAL BUDGETARY SYSTEM OF CONTROL ACCOUNTS

The Ledgers consist of machine posting ledger cards, the size about 11"x 11", and are kept in steel-covered cases with a capacity of about 2,000 accounts each. The case is on a movable stand with wheels, so it can be readily moved around in the

office or in and out of the vault. The cover may be locked and the key carried by those responsible for the books.

The accounts are arranged in the cases by ledger divisions, with tabs of different sizes and different colors to facilitate quick identification.

The ledgers are divided into three cardinal divisions as follows:

- A—PROPRIETARY LEDGERS—separated as to Funds.
- B—OPERATING LEDGERS—separated into the following sections:
 - (a) Group Section Ledger.
 - (b) Departmental Control Ledger.
 - (c) Functional Unit Control Ledger.
 - (d) Object Accounts Ledger.
- C—BUDGET LEDGER—separated as to Budget Control Accounts, and Budget Subsidiary Ledgers.
- D—CAPITAL LEDGERS—separated as to Capital Control Accounts and Capital Subsidiary Ledgers.

This system of ledgers has proven to be highly satisfactory and far in advance of the bound book ledgers or the loose-leaf ledgers.

In fact, no other form may be satisfactorily used for the machine posting. The ledger cards are especially designed for the machine work which, together with the arrangement, greatly facilitates the posting of the vouchers. Each card is of sufficient width and ruled so as to carry on one side the debits, showing the date of the voucher, character of voucher, number of voucher, and amount. On the other side are posted the credits, with the same information. There is another column for "balance" of the account. The machine is automatic, in that it posts all information automatically, adds to old balance—or subtracts, as the case may be—bringing the new balance down, so the account shows the correct balance at all times.

An unlimited number of ledgers may be made to meet the requirements, and each ledger divided or sectionalized, as may be desired.

A separate and distinct ledger of accounts is made up for each separate and distinct fund, and the accounts divided in such manner as best suits the requirements.

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

At the end of the year the ledger cards may be bound in book form and properly labeled, and a new set of ledger accounts, with new balances, started for the new year. All of the vouchers also may be bound in book form. The daily financial statements should be bound in book form. When these records are bound in permanent book form they are in better shape for the files and for reference purposes.

All postings are printed by the machine, and each ledger account shows the date of voucher, number of voucher, character of voucher, and the amount, also the balance of the account.

The following illustration shows a ledger account when various items have been posted:

CITY OF ASHEVILLE
ASHEVILLE, N. C.

FIRST NATIONAL BANK

CITY

NAME BY BANK-LOTTER CO.				CITY							
DATE	FOLIO	MEMO.	CHARGES	V	DATE	FOLIO	MEMO.	CREDITS	V	BALANCE	PROOF
BROUGHT FORWARD					NOV 1	BAL		10,000.00		10,000.00	10,000.00
					NOV 2	CHK 1512		35.2			
					NOV 2	1513		19.75			
					NOV 5	CHK 1514		95.00			
					NOV 6	CHK 1515		8.00			
					NOV 7	CHK 1516		49.90			
					NOV 8	CHK 1517		50.00			
					NOV 9	CHK 1518		50.00			
					NOV 10	CHK 1519		22.50			
					NOV 11	CHK 1520		50.00			
					NOV 12	CHK 1521		85.00			
					NOV 13	CHK 1522		100.00			
					NOV 14	CHK 1523		200.00			
					NOV 15	CHK 1524		50.00			
					NOV 16	CHK 1525		150.00			
					NOV 17	CHK 1526		5.00			
					NOV 18	CHK 1527		25.00			
					NOV 19	CHK 1528		579.50			
					NOV 20	CHK 1529		30.00			
					NOV 21	CHK 1530		50.00			
					NOV 22	CHK 1531		102.40			
					NOV 23	CHK 1532		50.00			
					NOV 24	CHK 1533		350.00			
					NOV 25	CHK 1534		50.00			
					NOV 26	CHK 1535		8.44			
					NOV 27	CHK 1536		318.21			
					NOV 28	CHK 1537		62.50			
					NOV 29	CHK 1538		125.00			
					NOV 30	CHK 1539		70.00			
					NOV 30	CHK 1540		21.20			
					NOV 30	CHK 1541		6.25			
					NOV 30	CHK 1542		41.55			
					NOV 30	CHK 1542		146.0		12,843.32	12,843.32
NOV 30	CHK	270	2,500.00								
NOV 30	CHK	271	3,750.00								
NOV 30	CHK	272	10,000.00							3,406.68	

8—MECHANICAL BOOKKEEPING

An underlying principle of the system is the correct preparation of the posting voucher, which shows the name of every account affected by the transaction, also shows in what ledger it belongs. It shows every detail account, so that when the voucher is properly prepared the matter of posting same to the various accounts and in the various ledgers is a matter of simple detail. There are no registers, cash books, or journals, in which to enter the various vouchers representing the transactions that occur, as all of this information is contained in the voucher, and each voucher has far more explanation and far more information than possibly could be carried in bound books consisting of cash books, journals and registers. All vouchers are made in duplicate or triplicate, and filed both alphabetically and numerically. The process of writing a voucher and handling it through the books is as follows:

A payroll of the Street Cleaning Department may be taken for illustration: When this payroll is prepared by the timekeeper or payroll clerk, it is coded in a summary way and passed to the Auditor for drawing a voucher. After the audit of the payroll, a voucher is drawn on which the accounts are shown that are charged and credited. In the budget ledger there are some four or five accounts that will be affected by this payroll. The group ledger is affected; the divisional ledger is affected; the various control accounts are affected; the fund out of which the payroll is charged will be affected; the account of the Treasurer of that fund will be credited, and the bank account will also be credited.

The voucher is payable to the "Payroll Account" and the money deposited to the credit of the payroll account in a separate bank account, against which the individual payroll checks are issued.

A copy of this voucher is transmitted to the machine posting operator, who may be a woman or man; in most cases a woman can handle this work very satisfactorily, and can take care of 2,000 or more accounts, besides preparing the daily financial statements.

It is very clear that if all of the accounts and the amounts are written upon the voucher, the work of posting same to the respective ledger accounts by the posting machine, which is automatic—that is, the date, number of voucher, character of voucher, and amount, and balance of account, is posted by one operation—involves a comparatively simple class of bookkeeping duties.

It will be seen also, that the voucher clerk who prepares the voucher must exercise care in classifying the transaction into the various accounts affected.

On account of the automatic features of the machine posting work, the proof of the work is very easily made, so that there is no such thing as a ledger being out of balance.

In one case, a girl who had never worked in an office and did not know a debit from a credit, operated the posting machine, and she stated that the first sixty days she made only one error that threw the books out of balance, and that was discovered and corrected within five minutes after she had made it.

The work of the office can be so systematized that the voucher clerk can keep current in making all vouchers, and clear his desk every day. The machine operator can post all of the vouchers, representing the business of the day before, in from one to four hours, or by noon on the second day, and immediately prepare the daily financial statements. By such a system of handling the work the daily statements are made within 24 hours of the dates of the transactions. Under the old methods, daily statements cannot be satisfactorily made, and monthly statements are not made until late in the next month—unless it is a cash book statement.

The reference feature of the system is unsurpassed. Every posting on every account carries the voucher number and character of voucher, the date, and the amount. The copy of the voucher that is transmitted to the Machine Bookkeeper is filed numerically, and a copy is sent to the alphabetical files that contains the supporting papers.

If it is necessary to refer to a voucher, or to prepare an itemized account, the references cannot be better. Each voucher not

only shows all of the accounts the transaction affects, but shows a full and complete explanation of the transaction.

Unless it is a case of reviewing the supporting papers, all information is obtained by reference to the copy of voucher on the numerical file.

The principal advantage of the Machine Posting over the hand posting method may be stated as follows:

- 1—The machine is a great deal faster than hand work.
- 2—The machine work is more legible and compact than hand work.
- 3—With the machine the various accounts can be maintained to carry all required information that would be impracticable—if not impossible—by hand.
- 4—With the machine and the voucher arrangement, the entire posting work is completed when the voucher is posted, and the books ready for a final trial balance—as against the hand work of the old method, where a final trial balance cannot be taken for purposes of preparing statements until the end of the month, at which time the footings of various records are determined, journalized, and posted into the books of account.
- 5—The Machine Posting work is more economical as it does not require an expensive bookkeeper for machine operating, and the books are much less expensive than the bound books used in the old system.

9—REPORTING SYSTEM

The reporting system is a very important and necessary phase in the Mechanical System of Budgetary Control Accounts.

There are two distinct classes of reports: the incoming departmental reports, and the outgoing financial reports.

The entire bookkeeping system is centralized and located in the Bureau of Accounts under the supervision of the Director of Finance. It is necessary for a daily report to be received from each of the departments, showing all transactions affecting any account maintained in the office of the Director of Finance, or that may affect the finances of the City. Each department, or official, that may originate or handle any transaction involving the finances of the City is furnished with a special form of daily report, which is used in reporting daily to the Director of Finance. From these reports the voucher clerk prepares the vouchers that are the official vouchers for all expenses, revenues, receipts, disbursements, and journal entries necessary in keeping accurate accounts of all transactions. The following illustration will give an idea of the features

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

of a daily report for any department charged with the responsibility of collecting revenue assets that have been heretofore set up in the books as receivables:

No. _____

CITY OF ASHEVILLE, N. C.
TAX DEPARTMENT
 COLLECTOR'S DAILY REPORT

COLLECTOR _____
 COVERING _____

A	TAXES		
1.	Balance uncollected, from last report. (Block A, Line 5.)		
2.	Additions made today. (Schedule No. attached.)		
3.	Abatements and other credits today. (Schedule No. attached.)		
4.	Cash collected today. (Carry to Block D.)		
5.	Balance uncollected, close of today.		

B	STREET IMPROVEMENT ASSESSMENTS		
1.	Balance uncollected, from last report. (Block B, Line 5.)		
3.	Abatements and other credits made today. (Schedule No. attached.)		
4.	Cash collected today. (Carry to Block D.)		
5.	Balance uncollected close of today.		

C	MISCELLANEOUS RECEIPTS OTHER THAN FROM CHARGES HERETOFORE REPORTED	CODE	AMOUNT
	Total Miscellaneous Receipts today (to D).		

D	CASH ACCOUNT		
	Cash Collected (Block A, Line 4).		
	Cash Collected (Block B, Line 4).		
	Cash Collected (Block C).		
	Cash over in balancing cash today.		
	Total Cash remitted with this report.		

I HEREBY CERTIFY THAT THE ABOVE STATEMENT IS A CORRECT ACCOUNT OF THE CASH COLLECTED THIS DAY.

COLLECTOR _____

The daily report to the City Manager, or executive heads, may be arranged in such manner as may be desired, to give the information necessary for administrative purposes.

The daily report of the City Manager—or what is known as the “Daily Financial Statement”—is prepared each day and submitted to him, which contains certain condensed information pertaining to the Budget Accounts, Treasurer’s Cash Account, Uncollected Assets, and the indebtedness of the City. These reports are made in duplicate, or as many copies as may be required. They are kept on post binders until the end of the year, and then may be bound in book form, making a book of daily financial statements of the City, which is a reference record of great value.

This Daily Financial Statement may be divided into six blocks, as follows:

- BLOCK A—Contains a Balance Sheet of the Budget Control Accounts, which shows the expenses and obligations incurred today and total since the beginning of the year and balance of unencumbered appropriations; the total amount of revenues collected and uncollected; balance of revenues required for meeting the Budget Appropriations; the amount of outstanding Open Market Orders; the condition of the “Available Surplus” Account, which shows whether or not the actual cash collected is sufficient to meet the expenses; and the “Unapplied Surplus” Account, which shows the uncollected revenue assets.
- BLOCK B—Contains the departmental budget accounts, showing original appropriation for each department; the total amount of expenses and obligations; and balance of unencumbered balances.
- BLOCK C—Contains the Treasurer’s Cash Account, divided as to the funds, showing the balances at close of the day before; the receipts for the day; the disbursements for the day; and the balances at close of the day.
- BLOCK D—Contains a statement of the various classified accounts receivable; taxes and street assessments; showing the additions and deductions for the day; and balances at the close of the day.
- BLOCK E—Contains the classification of the current indebtedness; what was added and what was deducted during the day; and the balance at end of the day.
- BLOCK F—Contains a statement of the bonded indebtedness.

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

In addition to the "Daily Financial Statement" that is prepared every day, the departmental budget reports are made and furnished each of the Directors. To illustrate the form of this report and the information contained, a cut of one of the forms is herewith reproduced:

BUDGET STATEMENT

DEPARTMENT OF FINANCE

Covering

Form 31-200

BUDGET CONTROLLING ACCOUNTS		
Total original appropriation - - - - -		\$
Obligations and Expenditures last report - - - - -	\$	
Obligations and Expenditures To-Day - - - - -	\$	\$
Balance unencumbered appropriation To-Day - - - - -		\$

BUDGET UNIT ACCOUNTS			
	UNENCUMBERED BALANCES LAST REPORT	OBLIGATIONS AND EXPENDITURES SINCE LAST REPORT	UNENCUMBERED BALANCES TO-DAY
	\$	\$	\$
201 Administrative			
202 Bureau of Accounts			
205 Bureau of Purchases			
207 Bureau of Receipts and Disbursements			
TOTALS			

REMARKS

10—INDEPENDENT AUDITS

There are very few Municipalities, either large or small, that do not have the books and accounts audited by Certified Public Accountants. It is essential for books to be audited by independent accountants, especially in the case of public institutions.

Accountants who are familiar with municipal work can usually render a very valuable constructive service in making suggestions in methods that will add to the efficiency and economy of the administration.

In the case of the "Mechanical System of Budgetary Control Accounts" such as has been installed in the City of Knoxville and other cities, the expense of auditing the books by independent accountants is materially reduced. The system is a controlling system, and provides for all obligations and expenses—including open market orders, contracts, and other commitments to be recorded. The outstanding obligations are recorded in the books, properly classified as to Funds, Functions, Character, and Objects. The system of controlling accounts control the revenue of the various departments. The work of verifying such a system of accounts is greatly facilitated. The internal check is so complete that the auditor may rapidly accomplish that which would be a very great task or difficult problem in the case of auditing the old system of cash book methods.

There is very little, if any, construction work to be done in the work of auditing the books maintained under this new Mechanical System of Budgetary Controlling Accounts. The system is so arranged by controlling accounts—one control tying in with another—supported by vouchers carrying the explanation, and showing the journalization and all accounts affected, that it makes so complete an internal check that the work of auditing and verifying the books becomes a pleasure to an accountant who appreciates the science of modern accounting procedure.

11—QUESTIONS AND ANSWERS

There have been such an unusual amount of questions asked regarding this new system that it may be of interest to give some

of the most important ones, with their answers, in connection with this brochure:

Question—"We have a City of about 75,000 inhabitants, and have—as we think—an unusually good accounting system. Our books consist of a voucher record, in which all vouchers are registered, and a cash book, in which all receipts from all sources and all disbursements made, are recorded. The voucher record is a columnar book that enables us to classify all of the vouchers according to departments and funds. Our ledgers are loose leaf records, which are usually kept in balance. We make up monthly statements, as we could not make a daily statement that would be of any value, unless involving a tremendous lot of work, further than giving bank balances. We are able to get out our monthly statements around the 15th of each month. We make a budget at the beginning of the year, but we do not run this budget through the books and keep separate and distinct accounts of each appropriation and post to it daily, but do make a monthly statement showing the condition of the budget by using the departmental totals against departmental appropriations. We do not understand how a better system can be devised than what we now have, yet we are very much interested in the mechanical budgetary system such as we understand the City of Knoxville has recently installed?"

Answer—"You have described a system such as may be found to exist in a great number of municipalities, both large and small. While your system was very good years ago because it was the best that accountants had to offer, it is now completely out of date. The same can be said of the horse and wagon delivery. Before the invention of the automobile truck the horse and wagon delivery was the best known conveyance for that purpose. The keeping of books by machinery is a great improvement over the hand method. It is quicker, and it is more accurate. You spend a great deal of time, no doubt, in duplicating work; that is, after you make your voucher you then enter it on your voucher record and other subsidiary records, after which you post by hand to the various accounts, and after that is done you have to add and prove the columns and accounts, and no doubt you frequently spend a great deal of time in getting your books in balance; whereas, under the mechanical system, when the voucher is made and posted the bookkeeping work is finished and the matter of posting is a simple clerical machine-operating job. With this mechanical system far more detailed accounts can be kept than is possible under your system. The work is kept current—whereas, you cannot do it under your present system. You have a great deal of work at the end of the month to do in the way of journalizing entries and posting your monthly totals, and perhaps getting some of your books in balance. This is all eliminated in the mechanical system. You do not keep a system of budget accounts that tie into the system. This is absolutely essential. The Manager of the City of Knoxville would not undertake to run a City without complete budget

information. It is the only way to escape deficits and overdrafts in funds. From a bookkeeping standpoint the mechanical budget system, with its various control accounts, makes such beautiful proof methods that the work of keeping the books is greatly reduced, and tends to convert a humdrum bookkeeper into a scientific municipal accountant. The work becomes fascinating—as against the old drudgery method of working on books all day long, and possibly two or three hours at night to get them in balance.”

Question—“If you put the budget on various accounts, and charge against same daily the expenses and obligations, including the market orders that are sent out by the purchasing agent, what method do you use in adjusting the amount on the market orders that has gone through the books and the actual amount of the invoice, which may frequently differ?”

Answer—“The Purchasing Agent checks the invoice against the order before it is turned in to the Auditor for a voucher to be drawn for payment. If the invoice differs from the amount on the purchasing order, he enters the difference at the time he checks the invoice against the purchasing order on a special form for ‘Adjustment of Purchase Orders’ and turns this in either daily or every few days, so that these adjustments are posted through the budget accounts, after which the budget accounts are in accord with the amounts of the invoices. This is very simple, and produces no obstacle or problem.”

Question—“We notice by the daily financial report that goes to the City Manager of Knoxville, there is a great deal of information that, it would seem, would take a great deal of time to prepare?”

Answer—“You will understand that the machine posting is automatic—in that it brings down the balances automatically every time a posting is made, so all accounts carry correct balances. In making this daily report form one person may type the figures from the ledger cards while another calls the figures from the cards and that will represent about the time consumed in preparing the report. This system carries all accounts necessary in making any kind of report that may be desired. They are arranged in the ledger just as they may be arranged for report making, so that the matter of making a report is nothing more than copying the balances from the ledger accounts, and requires comparatively little time.”

Question—“As we understand your system, it makes radical changes, and we would like to know whether an office force that has been familiar with old methods can learn the new system within a reasonable time?”

Answer—“You will understand there is nothing technical to be learned. The system is nothing more than your old system systematized into standardized methods. The only bookkeeping or technical knowledge required is that the voucher clerk and the auditor should know something of accounts and bookkeep-

ing. They should have a sufficient knowledge of the science of accounts as to quickly enable them to classify any transaction that may be encountered. As for the remainder of the bookkeepers and clerks, no technical knowledge is required. There has been no trouble whatsoever in teaching the old office force the new system within a few days or a few weeks at the latest. Every person who has anything to do with the transactions must code them so that, when a record of the transactions come to the bookkeeping department, they are already coded, and the auditor merely has to verify the work—then prepare the vouchers, which are posted on the accounts. There is nothing complicated and nothing hard to learn. In one instance a girl who didn't know a debit from a credit—never worked in an office before—made a remarkable showing the first sixty days. She claimed that she made only one error, and she discovered and corrected that within five minutes after it was made."

Question—"We do not see a great advantage in giving the head of a department a statement of his budget accounts every day. We would like to know what the advantages are."

Answer—"It is true that it may not be necessary to make Departmental Budget Reports every day—possibly in some instances once a week would be sufficient—but the theory of making these reports and presenting them to the heads of departments showing the condition of their budget accounts is this: If the head of a department is a man of any consequence at all, he must have in his breast some aspiration of not only rendering to the public the best service his department can render, but must also have a special aspiration to live within his budget authorizations, as well as to show some budget surplus at the end of the year. If he shows some surplus at the end of the year and his department renders the service it should, then in such case he has made this surplus in his budget by reason of economy; and a small surplus in each of the various departments when brought together as a whole makes a very satisfactory showing. There is another feature, which is: if each head of department is fully acquainted with the condition of his budget accounts, he certainly does not want to make a poorer showing than the head of some other department without having a very good reason therefor. In other words, it tends to create a rivalry in the matter of economy, as well as efficiency."

Question—"We find that, no matter how carefully we prepare the budget for our City, the appropriation accounts are over-expended. In some accounts we do not spend the appropriation, while in other accounts we may have an overdraft. How do you handle this kind of discrepancies and overages?"

Answer—"You are quite right. No person can prepare a budget that can be literally lived up to in every respect. For illustration: You may make up your budget for police salaries, and some time during the year there may be a condition or circumstance that will require additional policemen, and therefore require an additional appropriation. Again, there may be severe storms in certain

periods of the year that will bring about some expense that was never thought of at the time the budget was being prepared. In fact, there are hundreds of things that will enter into departmental expenses that will affect budget authorizations and require budget adjustments to be made from time to time during the year. There is, however, no problem in this question. It is simply this: that you know every day the tendency of the expenses charged to any particular appropriation—whether it is going beyond the expectancy or not. That is one of the objects of the daily statements. Should you see that an appropriation is being absorbed faster than it should be, your attention is immediately attracted thereto. It is the duty of the executive officer to determine whether these unexpected expenses are essential, and whether or not the appropriation is sufficient. After this investigation you are in position to make an adjustment in your budget account in the regular legal way by taking an amount out of some appropriation that you can spare, and adding to the appropriation that is insufficient. In the case of Knoxville, the City Council passed certain Resolutions adjusting certain appropriations before the close of the year, which answers the very question you have asked.”

Question—“We understand that in your audit reports of municipalities where you have this system installed, you make as the principal statement of your report Exhibit ‘A,’ which statement contains only the budget control accounts. All the statements we have seen made by public accountants, as well as City Officials, either made the assets and liabilities statement—or what is known as the balance sheet—as their principal statement, or the receipts and disbursements of the various funds as the principal statement.”

Answer—“Municipalities are run by a budget plan, or at least they should be. The outstanding question with any municipality is: ‘Is the City operated within the Budget or not?’ If the City operates within its budget, the matter of assets and liabilities, and the matter of what the detailed expenses were, and detailed revenues were, are merely schedules of information. Therefore, the budget control accounts statement is the kernel in the nut. If you have operated your City within the budget, then without seeing another statement, you have a pretty clear idea as to the general information contained in the other statements. We deem it very essential that the principal or cardinal statement of a municipality or any other governmental organization should be the budget control accounts statement. The annual report of the City of Knoxville contains six Sections, designated Section 1 to Section 6, inclusive.

Section 1 contains everything pertaining to the budget accounts, and if the City Manager received no other statement but this one Section, he would have—for administrative purposes—the principal information he required.

Section 2 of the report contains the expenses and revenues. In other words, the actual expenses and the actual revenues belonging to the year.

Section 3 contains the proprietary accounts; that is, the assets and the liabilities and various schedules supporting same.

Section 4 contains statements of all of the special funds.

Section 5 contains statements of the capital ledger, showing the cost of property acquired, classes of properties, and the bonds outstanding.

Section 6 contains miscellaneous statements, such as the trial balance of the books, reconciliation between budget fund accounts and proprietary accounts, the budget for the ensuing year, and statistical data.

Question—"What is the difference between your surplus account in the budget ledger and your surplus account in the proprietary ledger?"

Answer—"It is best to thoroughly understand what a surplus is. A surplus in the general fund balance sheet is the excess of the fund assets over the fund liabilities. That difference is called a 'surplus' or 'fund assets in excess of fund liabilities,' and that is a credit balance in all cases. On the other hand, if the liabilities exceed the assets, it is a debt balance, or deficit. In the budget ledger the surplus is created differently, and therefore is opposite to the surplus account in the proprietary ledger in that a debit balance would be a surplus and a credit balance a deficit. The budget surplus is created in this way: The revenues that are determined or collected is a debit, and adds to the surplus in the budget. The obligations and expenses authorized by the budget paid and unpaid are credits or deductions—therefore, if the budget surplus account shows a debit balance it means a surplus, and if a credit balance, a deficit. We divide the budget surplus into two accounts: One we call available, which means cash; either a cash balance or an overdraft in the cash account; and the other—for lack of a better term—is called 'Unapplied Surplus,' which means that part of the surplus that is invested in the uncollected revenue assets. Both of these surplus accounts brought together will be the same as the surplus in the general fund as shown by the proprietary ledger. If money is borrowed in anticipation of taxes, that does not go through the budget ledger at all, because borrowed money does not add to the surplus; neither does paying the debt off reduce the budget surplus; therefore neither the borrowing of money nor the repayment, enters into the budget accounts; and of course the same transaction in your proprietary ledger would not enter into its surplus account. If \$100,000 is borrowed, you charge that to the Treasurer and credit Notes Payable in the proprietary ledger. The surplus in that ledger would not be affected. There would be no entry made in the budget ledger whatever of such a transaction. You can always prove your budget surplus by your proprietary surplus. This should be done every day or two, because this reconciliation enables you to discover any wrong classifications in the budget ledger or wrong treatment in the proprietary ledger."

Question—"We do not know exactly how the operating accounts are arranged in the operating ledger. It would seem that, with so many divisions and so many ledgers, there would be some intermixture or confusion."

Answer—"There is no intermixture or confusion in the arrangement of the ledger accounts. They are arranged scientifically and clearly, and every person in the office thoroughly understands them. It doesn't take five minutes to understand the arrangement. For illustration: We will take a functional division of

MECHANICAL SYSTEM OF BUDGETARY CONTROL ACCOUNTS

the Department of Public Safety of a certain City, and this is the arrangement of the accounts of this unit: The first account of this unit is the Functional Control Account—which is—

402 Police Force Control—\$229,923.78

“This ledger account may be blue or white in color, to distinguish it as a control account. Immediately behind this account are the various object accounts (color buff) making up this total, which are as follows:

A- 3 Salaries and Wages	\$195,648.18
B- 4 Boarding Prisoners	1,490.95
B-12 Freight and Express Charges	27.22
B-13 Lights and Gas	4,127.59
B-15 Periodical Subscriptions	15.00
B-18 Professional Services	1,562.05
B-19 Telephone and Telegraph	239.15
B-20 Traveling Expenses	775.75
B-21 Taxi and Car Fare	4.90
B-22 Water and Ice	201.05
B-23 Fees, Licenses, etc.	10.00
B-24 Sign Painting	106.71
B-27 Laundry Charges	20.74
B-31 Repairs, Equipment	90.81
B-32 Repairs, Autos and Trucks	1,902.22
B-33 Repairs, Building	34.30
C- 1 Paints and Chemicals	1,260.17
C- 2 Fuel	55.00
C- 5 Gas and Oil	1,699.64
C- 6 Household Equipment Supplies	74.00
C- 7 Janitors Supplies	116.84
C- 8 License Plates and Tags	2.00
C- 9 Equipment Supplies	4.60
C-11 Motor Vehicle Repair Parts and Supplies	1,013.10
C-12 Office Supplies	1,166.64
C-13 Postage	5.75
C-14 Police and Military Supplies	128.45
C-15 Street Signs and Numbers	559.79
C-16 Wearing Apparel	1,977.25
C-17 Work Tools and Supplies	7.30
C-21 Electrical Supplies	38.44
C-22 Hardware Supplies	62.09
C-25 Lubricants and Grease	5.10
E- 9 Insurance, Automobiles	29.67
E-10 Insurance, Buildings	1.90
E-13 Insurance, Surety Bonds	5.00
E-21 Pensions	10,686.33
F- 1 Automobiles and Trucks	4,136.56
F- 6 Furniture and Fixtures	389.16
F- 8 Equipment	125.38
F-12 Office Appliances	117.00
 TOTAL	 \$229,923.78

"This is one of the ledger sections that represents a functional unit belonging to the Department of Public Safety, an organized unit. There is a master control account for the organized unit of Public Safety which will control its functional control accounts, and each functional control account will control the individual object accounts in the functional section.

"The sections and the ledgers are distinctly divided by especially made tabs. These tabs are attached to thick card-board divisions, and are labeled with the name. Colors are used to facilitate identification.

"It is very easily seen that, in the work of posting, when an item is posted to an individual object account, it must be posted to the sectional control account—also to the master control account."

Question—"We notice that your voucher shows that an expense is charged to more accounts than are credited; in other words, the voucher does not balance. We do not understand why your ledger is in balance if more debits are posted than credits?"

Answer—"The entire accounts are divided into ledgers; that is, the General Fund Ledger is distinct and separate from the Sinking Fund Ledger, or any other ledger of the various funds. The General Fund Ledger, as well as other ledgers, has various subsidiary ledgers.

"There are two major controls in the General Fund Proprietary Ledger, viz.: "Operating Expenses Control" and "Operating Revenues Control." These two major control accounts, control all subsidiary postings to the various divisions of expenses; that is, the "Group Ledger," the "Divisional Ledger," and the "Object Ledger."

"For illustration: if a telephone bill of \$100 is paid, it would be a debit in all three subsidiary ledgers, in addition to the Budget postings, and only one debit in the Proprietary General Fund Ledger.

"It is seen that an expense voucher must show more debits in different ledgers than credits.

Question—"We understand that you have perfected a mechanical system of bookkeeping in connection with the machine posting machines for Cities and other Governmental organizations that has revolutionized the old way of keeping books. We operate a large cotton mill and have some three or four bookkeepers to handle the accounts.

"We would like to know if this system is adapted to manufacturing or commercial bookkeeping, and if so, what are the advantages?"

Answer—"There is no new principle in the mechanical bookkeeping. It is the old methods systematized, efficiently injected into the way of handling the work, which is just as excellent for manufacturing and commercial activities as it is for municipal corporations.

"In case of costs being maintained in manufacturing, it is unsurpassed; in fact, any kind of bookkeeping involving account-keeping, is what the system was especially designed for.

"The advantages in the system for a manufacturing or commercial business may be summarized as follows:

- 1—The entire bookkeeping work may be kept current; that is, the work need not be over a few hours behind the actual transactions.
- 2—The entire work in connection with account-keeping is done by machinery, which is faster and more accurately done than by hand.
- 3—When a voucher is posted, the books are—in effect—closed, and a final trial balance may be taken for the preparation of detail statements.
- 4—The Controlling Accounts show accurate balances, even the Profit and Loss Account shows the profits or the losses day by day, and the cost accounts show the cost of making the product at the close of every day.
- 5—The bookkeeping is done more economically, and accounts are more accurately kept.
- 6—The expense of auditing the books at the end of the year, or any fiscal period, is materially reduced.

Question—"Do you keep the Water Department or the Electric Light Department books in the Bureau of Accounts? If not, in what way do you handle the books of municipally owned profit and loss activities?"

Answer—"The detailed accounts of the Water Department must necessarily be maintained in the Water Department Office. In the General City Bookkeeping Office only control accounts are maintained for the Water Department, Electric Light Department, Hospital Department, or any other profit and loss activity owned by the City. The detail accounts are maintained in the office of these activities, and the controls will be found in the General Accounting Office of the City. That is to say, the books at the General City Office will show the total amount of uncollected consumer's water bills unpaid at all times, but the individual accounts of these consumers are kept at the office of the Water Works. This illustrates all other accounts, both proprietary and operating. In the General Office will be a controlling account of the cost of all additions and extensions, and in the Water Office will be the detailed cost accounts making up the costs as shown by the control account."

Question—"Is it not a difficult matter to get the various heads of departments to properly code the items on the requisitions they make or the pay-rolls prepared by the time keepers?"

Answer—"There is no difficulty at all. At the very beginning, when the new system begins to operate, every office of the city is furnished a copy of the Code with proper instructions how to use it, which takes about 15 or 30 minutes teaching. It is well known that no order will be filled, or a purchase made, unless the requisition shows the items coded. Everything must be coded on every requisition or report transmitted to the Bureau of Accounts. They can not be handled unless they are coded. There is no problem or difficulty in having the coding done."

Question—"How do you handle purchases that have to be made without requisitions?"

Answer—"You perhaps refer to emergency purchases. Suppose a street auto breaks down in some part of the city, requiring some small purchase, it would be impracticable for the driver to walk back to the City Hall and file a requisition for the article, and go through with the regular red tape to get the item, which perhaps did not cost fifty cents. There are emergency purchase forms which are used for emergency purchases. The driver of the auto would make the purchase in accordance with his present custom for handling such cases, but would immediately report same to his department head the next day, and the head of that department would file with the Purchasing Agent a regular "Emergency Purchase" requisition. The emergency purchase would be treated through the books in regular manner. There are a limited number of emergency purchases made, however; every once and awhile certain emergency purchases have to be made by certain departments."

Question—"In what way may over-expenditures of appropriations be avoided?"

Answer—"When your City Council adopts an annual budget, properly and carefully prepared, it becomes a municipal statute. To ask how to stop its violation, is to ask how to stop the violation of any law the City Council enacts.

"The distinction between a Budget Statute, and another municipal law, is that the violators of the Budget Law represent a different class from ordinary law violators.

"The violations of the Budget Law may be entirely stopped, whereas the other class of violators may not be entirely stopped.

"There is no reason why the appropriations should be over-expended. To admit that such violations occur is to admit of an inability to properly manage the fiscal affairs of the city.

"If the proper methods are adopted, an appropriation account can not be over-expended, there is no such thing as an overdraft of any appropriation account without legal and proper adjustments.

"The City of Knoxville the first year under the managerial form of government, lacked more than \$42,000.00 expending the budget appropriations, after reducing the revenues by returning ten per cent. of the taxes paid in back to the taxpayers, and in addition, setting aside a reserve of more than \$142,000.00 for open market orders for supplies and materials that had not been received and which will be used during the next year. This is the result of not allowing budget appropriations to be overdrawn and economically managing the fiscal affairs of the city, of which the information from the books daily presented had a great deal to do with."

Question—"We understand you have perfected a new system of Mechanical Budgetary Accounts for municipalities which is a great improvement over the

old methods, such as has been installed for the City of Knoxville and other cities. We would like to have an idea of the scope of your work in connection with the installation and how long it takes to install the system."

Answer—"The scope of the work necessary in the work of installation depends upon the size of the city, the conditions, methods and plan of organization. The first work required in connection with the installation is to make an accounting survey of the methods and system now in use, and then chart the entire plan of the new system.

"The system comprehends the centralization of the bookkeeping into one office of accounting control. In some cases the charter of the city will not permit a complete centralization. It must conform to the laws governing the plan of organization of the city government. After the new system has been chartered in all detail, including the preparation of the Code, Forms, etc., and met the approval of the authorities, the installation may begin, which does not require but comparatively little time.

"The entire expense of the installation including the machines, Ledgers, and daily report forms is comparatively small.

"In one city the entire expense of installation was a great deal less than the cost of the annual audit of the books for previous year. In another case, the saving in the expense of auditing the books of the new system, over the previous expense of auditing the old system of books, exceeded the entire expense of installation.

"The value of the advantages of the new system, can not be compared with the amount of the expense of installation."

Question—"We understand you use ledger cards for your ledgers. Is this preferable to bound books for recording transactions, especially for public institutions?"

Answer—"It is far more preferable to loose leaf ledgers or bound book ledgers of any form. Bound book ledgers are now out of date for a great many purposes. Some think of loose cards for ledgers, as a loose and careless way of handling the books. Loose ledger cards for accounts are now used almost universally by the banks throughout the country, and are rapidly taking the place of loose leaf ledgers and bound book ledgers in all lines of business.

"Where ledger cards are used, a good controlling system of accounts is maintained, so that a misplaced ledger card may be readily detected by the daily process of proving each section of accounts correct. The ledger cards are easily and quickly handled. The closed accounts are immediately transferred to the Transfer Case out of the current files. The current files carry only live accounts. No time is lost on account of continually handling dead accounts as is done with bound book ledgers.

"The Transfer Case is divided exactly as the current accounts are and when an account is closed, or a ledger card is used up on both sides of the card with

postings and a new card must be started, the dead cards are immediately placed in the Transfer Case in proper place.

"A card is never permanently lost. Sometimes, very rarely, a card may be put back in wrong division or out of place. The proof of that section will immediately show that a card is missing by the section being out of balance. The first thing is to look into adjacent sections, and within a few moments the card is discovered. This character of errors are indeed few and are of such insignificance that they constitute no objections at all to the use of ledger cards for ledgers.

"At end of the year the cards may be all bound in permanent book form and filed away for reference purposes."

Question—"What is the plan of organization of the office work in connection with the operation of the new system?"

Answer—"This is a very interesting question and an important one. The handling of the office work in connection with the working of the system may be beautifully systematized. The work may be divided into three principal divisions as follows:

A—PURCHASING DIVISION—This department requires a Purchasing Agent, and as many clerks or assistants as are necessary to look after the work, depending upon the size of the city or volume of work.

B—VOUCHER DIVISION—In this department where all vouchers are prepared, it will require one Voucher clerk and as many assistants as are necessary for the work.

C—BOOKKEEPING DIVISION—In this department one machine operator is required unless it is a large city of at least 150,000 or more.

"The above are the principal divisions of the work in the office of the General Control Books including the Purchasing Agent. In large cities there may be another division of Auditing, in the smaller cities the Voucher Clerk is the Auditor. Also in some large cities they have a Filing and Reporting division, which will require one or more clerks depending upon the volume of the work.

"It will be seen that the size of the city, volume of work and the plan of city government will have something to do with the general plan of office organization, and the number of clerks required to handle the work. The operation of the Mechanical System of accounts permits the work to be kept current. There may be no such thing as being two or three days or more behind in the office work. There is no postponement of requests for financial statements. Daily Financial Statements are made every day. The work must in accordance with the system of handling it be kept up in a current fashion, this is one of the beautiful feature of the entire workings of the system."

Question—"Is there any trouble in having Vendors transmit two invoices for each purchase?"

Answer—"At the time of installation and the beginning of the new system Vendors will have to be taught that in all cases two invoices must be submitted

with each purchase, one to go to the Purchasing Agent and the other to follow the delivery of the goods.

"In some cases it is not so important perhaps for the invoice to go with the goods. It is found however, that the Store-keeper or department head wants a memorandum or invoice of all deliveries. The Purchasing Agent must have a copy of the invoice. He can't submit his file for payment until the invoice is received and checked against the purchasing order.

"To admit that Vendors will not submit two invoices for the deliveries, is to admit that the Purchasing Agent can not perform his duties. There is no trouble after Vendors are shown the necessity of submitting two invoices."

Question—"In case we desire additional information as to your new system such as has been installed at Knoxville, Tennessee, and other cities do you furnish such information?"

Answer—"At any time you desire any information as to the System you may address the following:

MUNICIPAL DEPARTMENT
SCOTT, CHARNLEY & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
CHARLOTTE, N. C.

This firm maintains a special department for handling municipal work. They take pleasure in giving you all information, and will send a man to confer with you at any time desired.