

PROPERTY OF:-  
G.D. IRVING

● An Introduction  
to mechanical accounting methods

Prepared by  
Burroughs Corporation





Copyright, 1955  
Burroughs Corporation  
Detroit 32, Michigan

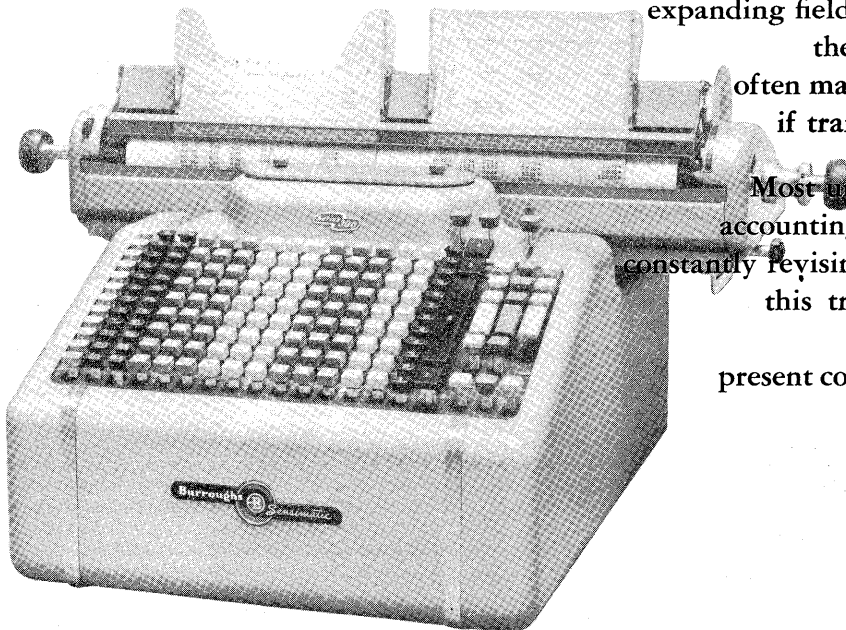
# Foreword

In recent years the mechanization of business offices has progressed very rapidly. This is apparent not merely in clerical work but in the compilation of vital accounting records and statistical reports upon which management must rely for its intelligent guidance of business.

Old principles are being applied in new ways. Traditional forms have been altered. Short-cut operations and combined procedures have been introduced. Form collators and multiple registers on accounting machines, distribution devices and many other technical features are affecting the availability, cost and often the contents of accounting records formerly prepared manually.

A student who is familiar with this new and expanding field will be of much greater value to the concern which employs him and often make faster progress in business than if trained in traditional methods alone.

Most universities, colleges and schools of accounting and business administration are constantly revising their courses to keep pace with this trend. Many introduce mechanical accounting applications through present courses; others establish new courses on machine subjects exclusively.



# INDEX

Introduction .....	Page 3
Machine Application Terms Defined .....	4
Machine Accessories .....	5-6
Accounts Receivable Posting Media .....	7
Designing Ledger Forms .....	8
Types of Accounts Receivable Records .....	9-13
Outline Machine Installation Procedure .....	14-15
Mechanical Principles in Accounts Receivable .....	15-17
Preparation and Procedure for Posting .....	17-19
Proof and Control Methods .....	19-22
Customers' Statements .....	23-24
Measuring Results .....	24-26
Miscellaneous .....	26

## Machine Section

<b>Typewriter Accounting Machine</b> .....	<b>29</b>
Accounts Receivable .....	29-35
Accounts Payable .....	35-37
Payroll .....	40
General Ledger .....	40
Other .....	40
<b>Multiplying Accounting Machine</b> .....	<b>42</b>
Billing .....	42-44
Payroll .....	44-45
Time Ticket Extension .....	46
Stores Ledger .....	46-49
Cost Ledgers .....	50
Tax Billing .....	50
Other Applications .....	50
<b>Numerical Accounting Machines</b> .....	<b>52</b>
<b>Adding-Bookkeeping Machines</b> .....	<b>52</b>
Accounts Receivable .....	53
Accounts Payable .....	53
Payroll .....	54
General Purpose Ledgers .....	55
<b>Sensimatic Accounting Machines</b> .....	<b>56</b>
Accounts Receivable .....	56-57
Accounts Payable .....	59
Inventory Control .....	60-61
Cash Received Journal .....	62
General Ledger .....	63
Payroll .....	64-65
Governmental Wage Reports .....	66
W-2 Reports .....	67
Bank Accounting .....	68-72
Credit Union Accounting .....	73
Savings and Loan Accounting .....	74
Cycle Billing .....	75-76
Layaway and Installment Accounting .....	77
Budgetary Accounting .....	78-79
Utility Billing .....	80-81
<b>Other Machines</b> .....	<b>82</b>
Adding Machines .....	82-87
Calculators .....	88-89
Validating and Receipting .....	90-91
Cash Registers .....	92
Microfilming .....	93-95
Electronic Digital Computer .....	96
Sensimatic-To-Punched-Tape .....	97
Electronic High Speed Printer and Punch .....	98-99



# Introduction

Prof. Willard J. Graham, Professor of Accounting in the University of Chicago and

an authority on mechanical accounting methods, said:

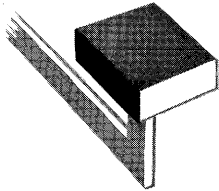
“All accountants should be familiar with accounting machines. Auditors should understand them in order to check machine prepared records more efficiently. System men—well, I can’t imagine a good system accountant to be unfamiliar with accounting machines, any more than an electrical construction engineer is unfamiliar with wires, switches, motors, etc. Office managers, purchasing agents, accounting professors—all of them should be informed on modern accounting methods.

“But particularly cost accountants, who supervise accounting operations on machines, who select machines for specific jobs, and develop routines and methods and procedures to make the most efficient use of machines, should be interested in machine accounting. You can’t make profits in the accounting department, but you can lose them there; and inefficient use of accounting machines may turn black figures into red very rapidly.

“Cost reductions in the accounting department are to be secured by several alternative methods and in many instances these methods overlap. Briefly, there are changes in the accounting system itself, in the forms and records, in the equipment, and in the personnel. The selection of machines and equipment is closely related to these things. Improvements in routines and procedures, scientifically designed forms and records, a better selection and application of machines and other equipment, and a properly selected, well-trained, well-paid, and well-managed personnel—that is the whole story.”

In the first part of this discussion, the subject of Accounts Receivable has been used to illustrate the basic principles because it was one of the first accounting applications mechanized and now provides a familiar

approach to the more complete mechanical systems that prevail today. It is hoped that it will not only be of practical value but serve to stimulate further study in the broader field.



## *Machine Application Terms Defined*

**Activity.** The frequency with which an account is posted or the percentage of accounts affected during a given period of time, as for example, during a posting run, a day or a week.

**Control Account.** A summary account representing the total of balances on all accounts in the ledger or section.

**Crossfooter.** The crossfooter is the computing mechanism used to calculate the new balance on a ledger account. As the term implies, it cross-foots (adds or subtracts) the account as the entries are made in the various columns across the sheet. The crossfooter is normally cleared when the balance of the account is printed.

**Collation.** Positioning two or more related forms together for simultaneous posting so that the beginning of the next blank writing line on each form will be at the same printing point.

**Localizing An Error.** The procedure of analyzing the machine records, in case the results do not immediately prove to be correct, in order to determine in what operation and on what account the error was made. See "Proof and Control Methods."

**Media.** Records of business transactions, which are used for posting the accounts. They include copies of invoices, cash slips, credit memos, vouchers, etc.

When each transaction is recorded on a separate form, such forms are called unit media. When several transactions are recorded on one form, it is known as a multiple medium. Unit media are usually an advantage in posting because they can be sorted according to the ledger arrangement.

**Offsetting.** Moving a ledger or statement sheet to the right or left of its normal position in the binder. Accounts are offset to facilitate their location when posting, to localize errors in proving, to apply certain methods of proof or for special attention.

**Pick-Up.** The previous balance of an account which is entered in the bookkeeping machine so that a debit may be added to it or a credit subtracted from it to obtain the current new balance.

**Pre-list.** A total of the media which is obtained for proof purposes before they are posted. When different kinds of items are to be posted, as for example, debits and credits, a separate total is obtained for each. They should agree with the register accumulations resulting from posting.

**Progressive Posting.** Posting to accounts in the order in which they occur in the ledger; for example, alphabetically or numerically. The media would be arranged in the same order as the ledger accounts.

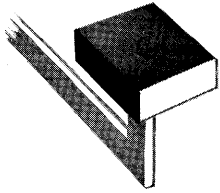
**Pulling.** Removing accounts from a binder, tray, or file. Sometimes all accounts to be posted are "pulled" before any are posted so they can be posted without repeated interruption for locating the accounts individually.

**Random Posting.** Posting items in the order in which they appear on the media rather than in the order in which the accounts are filed in the ledger.

**Registers.** The accumulating mechanisms in which columnar totals are accumulated. The totals may represent the sums of debits, credits, balances, etc., on numerous accounts, or differences between debits and credits. Registers are usually cleared at the end of a batch of postings. In some applications, registers may be used as additional crossfooters.

**Skeleton Record.** A condensed record to which totals only are posted rather than individual items. Thus, by eliminating detail, both posting time and space on the account are saved.

**Stuffing.** Placing posting media in the ledger in front of or behind the account affected. This routine combines the locating of accounts and the arranging of media in account order prior to posting.



## *Machine Accessories*

The selection of proper accessories in a mechanical installation often determines its success. The most efficient machine cannot overcome the handicap of poorly adapted accessories.

There are three general types of ledger containers known as binders, trays and "vertical visible" index files. Due to numerous differences in design, their relative merits are comparable only in a general way.

**Binders.** This type of container is constructed like a book. It may open either at the end or at the side. Usually binders have a somewhat smaller housing capacity than trays. Generally they are preferred to trays under the following conditions:

- (a) High activity. When a large percentage of the accounts are active, accuracy is more easily maintained if there are few accounts in each control unit—500 or less. A binder is a convenient container for this number of accounts.
- (b) Considerable reference to the ledger. When frequent reference is made to a ledger by the bookkeeping and credit departments, confusion is reduced by dividing the ledger into several small posting units or divisions. The work of both departments is thereby facilitated because a large percentage of the accounts is always accessible to both.

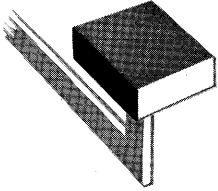
It is also easy to "thumb" the sheets in a binder. Since the covers are hinged, a binder can be opened wide to permit notations without removing the sheets.

- (c) Portability. Lighter weight ledger units are sometimes preferred by operators because of the ease with which they can be moved from the storage vault to the reference table or to the posting machine.

**Trays.** Short, lightweight trays have some of the advantages of binders. Certain conditions, however, favor the use of trays having greater capacity. They are:

- (a) Low activity. When a relatively low percentage of accounts is active, a convenient posting and control unit may consist of more than 500 accounts, and a large capacity tray may be used. Another advantage of large trays is that space is available in the rear of the tray for filing closed accounts.
- (b) Duplicate records. More filing space is required when two related forms such as ledger and statement are filed in the same container, especially when carbon paper is left between them. Also, when they are to be posted together, they are more easily handled from a tray than from a binder.

**Visible Index Cabinets.** Although these containers have not been adopted as extensively for machine posting as have binders and trays, they are mentioned because of the speed with which accounts can be located. Each cabinet is constructed in units, each unit consisting of a series of pockets in which the accounts are filed. The pockets are shingled so that about  $\frac{1}{4}$  inch of each pocket is visible for indexing purposes. The pocket is hinged so that it may be moved when referring to



## **Machine Accessories**

the account beneath. The names of many accounts can thus be seen at a glance.

**Machine Stands.** Both high and low stands are available. A low stand is used when a seated position is preferred. If the accounting machine is equipped with a typewriter, a seated position is necessary, of course. Many operators using machines not equipped with typewriters, produce highly efficient results from a standing position, particularly if relatively short posting runs are possible. For long runs or continuous operation fatigue caused from standing must be considered.

**Posting Desk.** Although machine stands are equipped with shelves or check tables, it is often desirable to have a specially designed machine desk with ample drawer space for blank ledger forms, carbon paper, etc.

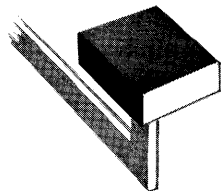
Usually, posting media are placed on the left-hand side of the operator and the ledger on the right-hand side. The ledger should be placed on a lower stand, preferably, so the tops of the ledger

indexes are about the same level as the posting media and machine keyboard.

**Operator's Chair.** A comfortable correct posture chair is indispensable. If it is equipped with a form fitting seat, comfortable cushion, ballbearing swivel, easy rolling caster, and a properly designed back rest, the operator will be more alert, accurate and proficient. It should be constructed so that any operator can adjust it easily without the use of tools.

**Miscellaneous.** When different sizes and types of media are used, greater posting efficiency can be promoted by using a specially designed holder with a separate compartment for each class of ticket. If the surface on which the tickets rest is sloped, the tickets will be "feathered" to facilitate handling. Telephone accounting offices, for example, use this device to speed up service billing.

Special meter-book holders are available for utilities and water bureaus where consumers' accounts are posted from meter readers' books. The leaves to the meter book are held in proper order so that they may be turned without fumbling.



## **Accounts Receivable Posting Media**

There is no single factor that contributes so much to routine efficiency as unit media.

A. Units can be sorted into the same order as the accounts. This permits progressive posting and also facilitates checking of posted accounts against the media at a subsequent run.

B. It permits stuffing the ledger in preparation for posting. This assures fast locating of the account during posting and a double check against posting to the wrong account.

**Obtaining Debit Media.** Since a copy of the outgoing invoice is in unit form, it is usually used as a debit posting medium. If necessary, an extended copy of the original order or shipping advice may be used.

If only a sales book or multiple-line invoice register is available, it is best to have the billing department sort the original orders into account sequence before billing them, so they can be posted progressively.

**Obtaining Credit Media.** Cash received in the mail is usually noted on envelopes, letters, remittance advices or copies of customers' statements retained in the Collection Department. These, or even the checks themselves, provide unit posting media. Cash on account collected by salesmen or over the counter is usually evidenced by a copy of a unit receipt.

If the records definitely require that posting be made from a multiple-line cash book instead of from units, the entries in the cash book should be arranged as nearly as possible in account order.

**Filing the Posting Media.** Although the billing system may provide numerous invoice copies for various departmental uses, only those that affect the bookkeeping department are discussed. The first three copies are usually disposed of as follows:

1. Original copy is sent to the customer.
2. Duplicate copy is filed in one of two ways:

(a) By dates, in customer order under each, or

(b) By customers, in date order under each.

3. Triplicate copy is filed numerically.

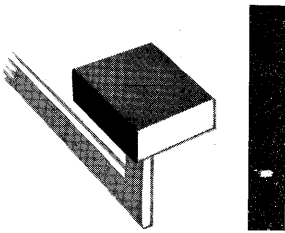
Plan (a) is probably the most common because it retains the media in posting order and facilitates checking trial balances, etc. It is adequate as a reference source for any individual transaction since the date and amount are usually known.

Plan (b) is very effective where several transactions are in question, such as when frequent back orders are involved; when repeated reference is made to an original purchase contract; when goods are ordered "same as last order"; or where an original specification sheet affects subsequent orders. This plan requires a separate file folder for each customer.

Credit posting media are usually filed by customers in date order. When bank checks are used as posting media, they are deposited, of course.







## *Designing Ledger Forms*

It is of first importance that a ledger form be designed to fulfill the accounting requirements. If an existing form is being revised, the information on the present form will serve as a guide for the new. When forms for new requirements are being designed, it is advisable to make a list of all probable data required and then arrange it according to heading, body, physical make-up, etc.

**Paper Sizes.** The most satisfactory quality of ledger stock for general machine use consists of wood sulphite with some rag content. Rag substance makes the sheet more durable and rigid. An all-sulphite stock, however, is satisfactory when accounts, such as bank ledger sheets, are not subjected to long, severe usage.

Paper comes from the mill to the printer in large sheets. The dimensions of three common sizes are 17" x 22", 22" x 34" and 24" x 38". Ledger sheets should be cut with as little waste as possible. A sheet 11" from top to bottom provides space for about 50 entries on each side after making allowance for an average heading and the bottom margin.

Widths can often be reduced by omitting the old balance and proof columns whenever these entries can be printed on the proof journal, which is written at the same operation. Small sizes are more easily handled and require less stock and smaller housing units.

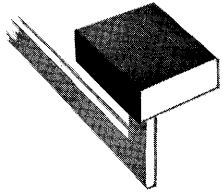
**Paper Weights.** The most common weight of paper stock for ordinary machine ledgers is about 28 lbs. (per ream of 500 sheets, 17" x 22"). This weight will readily permit the duplication of a carbonized statement if desired. If carboniz-

ing several copies through the ledger, 24 lb. stock may be used for the ledger and 16 lb. stock for the copies. However, other factors also help increase carbonizing ability, such as the carbon paper used, machine specifications, etc.

To provide rigidity for convenient handling and filing, large ledger forms often require a heavier weight of paper, for example 32 or 36 lbs. For this reason, most ledger forms should be cut so that the grain will run vertically.

Customers' statements are ordinarily cut from bond stock, usually of about 20-lb. substance. Width should be suitable for standard envelope sizes. The heading should be properly arranged for a window, to save addressing the envelopes. **Printing.** Data in the heading should be spaced vertically according to the machine used, usually in multiples of 1/6 inch. To avoid extra carriage stops when arranging the typing positions in the heading, the position of the stops for the amount columns in the body of the form should be considered. A natural sequence of data such as name, address, account number, credit limit, etc., should be arranged. The relative importance of the several headings may be emphasized by using type of different size and style.

Horizontal rulings are unnecessary although on especially wide forms, faint lines approximately an inch apart will help in tracing entries across the form. Both sides of the ledger form may be printed. Whether the headings on both sides of the form are printed at the same or at opposite ends will depend primarily on whether the form is punched. Columns should be of sufficient width to permit the maximum amounts desired.



# Types of Accounts Receivable Records

Machines can be adapted to practically any type of ledger form. However, there are more or less definite accounting requirements that determine the type most suitable. Considering the primary requirements of the old balance, debit, credit and new balance, the following are the main types used in machine accounting:

### Single Name Accounts:

- A. Continuous
- B. Monthly or Weekly (Foldover Statement and Ledger)
- C. Stub or Single Transaction

tomers who buy with reasonable frequency, at least every 60 or 90 days. A sheet 11 inches high ordinarily has a capacity of approximately 100 machine entries (50 on a side). With an average of two entries a week, such a sheet will serve about one year. Therefore, the continuous form of ledger account provides the best reference to the account's history.

**B. Monthly or Weekly Ledger Account.** This record is usually duplicate in form, being perforated at the top. Its most common use is in small accounts receivable installations. The original is separated from the duplicate at the end of each

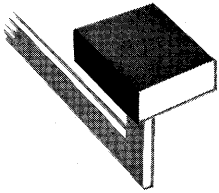
LEDGER						
NAME: The Modern Store						
ADDRESS: 110 Main Street						
RATING: A						
CREDIT LIMIT: \$250.00						
DATE	REFERENCE	CHARGE	CREDIT	BALANCE		
BALANCE FORTHWITH					55.05	
JUN 25	229.860	26.23		80.48		
JUN 25			55.69	24.79		
JUN 25	254.652	47.26		72.04		
FEB 25	256.857	23.59				
FEB 25	256.856	35.67				
FEB 25			74.09	131.35		
FEB 25	258.421	16.84		57.26		
FEB 25				74.19		

### Multiple Name Accounts:

- D. Sundry or Miscellaneous—Few transactions
  - E. Register sheet—Single transaction
- A. Continuous Ledger Account.** This is the usual form found in the large majority of installations. It permits the recording of entries, in date order, until the sheet is filled. It is suitable for all cus-

period and mailed as a statement to the customer. The duplicate becomes the ledger and is filed in customer order.

This type of machine form was originally designed to reduce paper handling time and increase machine production because the ledger and statement could be inserted and posted as a unit. If desired, the carbon may remain between the original and duplicate throughout the period.



# Types of Accounts Receivable Records

STATEMENT					
BAILEY ARTISTS SUPPLIES					
<ul style="list-style-type: none"> <li>• William R. Lewis</li> <li>• 1192 Columbus Ave.</li> <li>• Burroughsville</li> </ul>					
OLD BALANCE	DATE	REFERENCE	CHARGES	CREDITS	BALANCE
			BALANCE FORWARDED		3 6.45
	JUN 3	1,2 5 5	1 3.44		
	JUN 3	1,2 5 6	7.80		5 7.69 *
5 7.69	JUN 5	1,5 1 2	5 6.00		1 1 3.69 *
1 1 3.69	JUN 7	7CSH	4 5	1 7.50 -	
	JUN 7	7DIS	4 5	1.20 -	9 4.99 *
9 4.99	JUN 9	1,7 3 4	1 1 3.45		
	JUN 9	1,7 3 5	2 1.50		
	JUN 9	1,7 3 6	4 2.20		2 7 2.14 *
2 7 2.14	JUN 10	10CSH	8 1	5 6.00 -	
	JUN 10	10CSH	8 2	4 5.00 -	1 7 1.14 *
1 7 1.14	JUN 14	14C/M	5 5 6	1 7 7.15 -	6.01 CR
6.01 -	JUN 15	2,1 2 4	1 0 4.67		
	JUN 15	2,1 2 4	2.75		1 0 1.41 *
1 0 1.41	JUN 18	2,3 5 5	1 3.40		
	JUN 18	2,3 5 6	1 7.53		
	JUN 18	2,3 5 7	4.50		1 3 6.84 *

Its main disadvantage is that there is no continuous history of a customer's account on a single sheet; if the account is not paid at the end of the period, sometimes several sheets must be reviewed to determine the individual items due, or this need must be anticipated by transferring open items to the new account sheet. Transfer files also are necessary to house the sheets of previous periods.

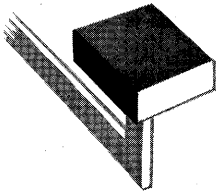
The monthly or weekly ledger account has been successful in small retail installations, such as grocery stores, drug stores, general merchandise

stores, garages, etc. Hotels and clubs have found it practical. Contractors frequently use it on their contract accounts receivable for the duration of a contract. It is more practical where the large majority of accounts are paid in full periodically.

### C. Stub-Ledger or Single Transaction Account.

This type of ledger consists of a stub created as a by-product of preparing a customer's bill or statement. The stub may be either an original or carbon record. If it is an original record, it is usually created by mechanical repeat printing. Both the





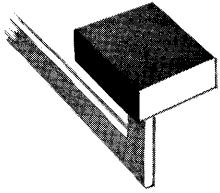
# Types of Accounts Receivable Records

LEDGER						
NAME L. V. Gaines						
ADDRESS 1172 Main Street						
RATING						
CREDIT LIMIT						
DATE	REFERENCE	CHARGES	√	CREDITS	√	BALANCE
BALANCE FORWARDED						
JUN 175-	1,172	97.50+				97.50•
JUL 105-	131			97.50-		.00•
NAME T. S. Hoffman						
ADDRESS 7239 Ewal Circle						
RATING						
CREDIT LIMIT						
DATE	REFERENCE	CHARGES	√	CREDITS	√	BALANCE
BALANCE FORWARDED						
OCT 35-	1,210	75.00+				75.00•
NOV 115-	251			75.00-		.00•
JUN 95-	2,117	87.50+				87.50•

**D. Sundry or Miscellaneous Account Ledger.** This form is used in many enterprises for miscellaneous or sundry accounts where only a few entries are to be made before the account is closed. Several accounts may be on a single sheet in order to economize space on the ledger sheet while still retaining a size of form large enough for efficient handling. A typical business is a custom tailor or a manufacturer of custom built shoes selling directly to consumers.

The multiple form of ledger sheet has definite limitations. For example, an account may require more entries than were first anticipated and, therefore, exceed the space allotted for it. The sequence of the accounts on a single page is, naturally, unchangeable. Therefore, when new accounts are to be opened in that section of the ledger, a strictly alphabetical order is not always possible. For this reason it is often necessary to maintain a separate index of the account names.





# Types of Accounts Receivable Records

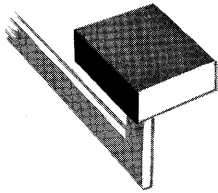
REGISTER SHEET													
DATE	METER READINGS		CODE USED	AMOUNT	NAME ADDRESS	ACCOUNT NO	FINAL BILLS			CREDIT		BALANCE	
	PREVIOUS	PRESENT					DATE	AMOUNT		DATE	AMOUNT		
JAN 30	3,256	3,279	EL 23	3.45	William R. Scott 1702 N. West Street	15-172							
JAN 30	4,530	4,562	EL 32	4.80	Robert J. Duncan 305 Woodlawn	8-040							
JAN 30	1,372	1,410	EL 38	5.70	Richard A. Block 62 Boston Road	12-145							
<b>CUSTOMER'S BILL</b>				<b>CASH STUB</b>									
		METER READINGS		CODE USED		AMOUNT		DATE		CODE		AMOUNT	
		PREVIOUS PRESENT											
		1,372 1,410		EL 38		5.70		JAN 30		EL		5.70	
Payable within 10 days of above date without penalty													

These objections do not apply where accounts are indexed by consecutive numbers, such as in employees' accounts, certain mail order accounts or where fixed conditions prevail that can be anticipated.

**E. Register Sheet Ledger.** The register type of ledger record contains a single-line entry opposite each account name. It may be an original record, or a carbon copy of the billing operation. In public utilities, it may be called a billing register; in department stores, a C.O.D. register; in insurance companies, a premium register. In government offices, a tax register falls in this classification. In many cases only the debit or credit to-

gether with date, reference, distribution, etc., may be entered, the balance of the account not being extended. The accounts may be stamped "paid" or "cancelled" opposite the charge incurred.

It is not a flexible record because unpaid items must be forwarded to another register sheet for the next period. All names must be rewritten each period. Further, it does not provide a continuous history of an account and some other record is usually required to serve this purpose. However, it is fast to prepare mechanically because it need be inserted only once for numerous postings. The posting media should be in account order to make progressive posting possible.



## *Outline of Machine Installation Procedure*

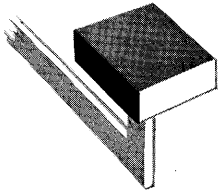
Installation problems are more than half solved when definite procedures are developed well in advance of the time the machines are to be installed. The change to the new system can progress smoothly from the outset if preparation is started early. It is much better to delay the installation a month than to start with operators insufficiently trained or before the office staff is fully acquainted with how the new system is intended to operate. In all cases the current work should be up to date before starting.

If the system is to embrace numerous accounting applications, it is often best to install it gradually, so each new step can be assimilated before the next is attempted. For example, accounts receivable may be transferred the first month, accounts payable the second month, journals the next month and general and financial records after other phases have been completed.

An outline of some of the more important steps follows:

- A. The Machine.** This should be ordered several months in advance of the installation date. The most efficient machines are those which are especially designed and constructed for the particular work to be done. Their construction cannot and should not be rushed. Time should also be allowed for thorough operator training—perhaps two weeks or more.
- B. Stationery.** Forms should be designed and ordered from the printer well in advance, particularly if special paper stock must be first obtained. When forms must be printed out of town, more time must be allowed for checking printer's proofs, etc. Special punching and die-cuts may delay delivery of forms.
- C. Accessories.** Ledger binders or trays, indexes, etc., need to be ordered in ample time. Delivery is desirable at least two weeks before the installation date.
- D. Heading New Sheets.** About the 25th of the month prior to the installation, the ledger sheets and statements should be headed for each account then showing a balance. Both sides of the ledger should be headed. It is well to ascertain the exact data desired by the management so fill-ins will not be required later.

Between the 25th and the 1st only a few of the accounts will usually be closed. In the meanwhile, if entries should come through for additional accounts, forms should be headed for them immediately.
- E. Balance the Old Accounts.** These should be posted up to date, footed and balanced promptly at the month-end. After this is done, avoid the possibility of any delayed posting to the old records that may change the balance.
- F. Trial Balance.** The sum of the account balances should agree with the total on the ledger control. If there is a discrepancy which cannot be readily located, it is not necessary to delay the transfer. Set up an adjustment account headed, "Trial balance differences," and liquidate the errors through this account when they are discovered. Journalize each error which is corrected and show the name of the account affected.
- G. Predetermined Control Total.** The adding machine tape of the trial balance of the old ledgers should be sub-totaled about each 50 accounts, in order to facilitate locating errors when the transfer is made. If any new subdivisions of the ledger are to be established, sub-totals should be taken at these points also. The grand total should agree with the old control account.



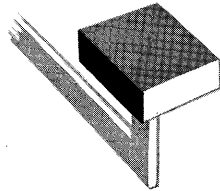
## ***Outline of Machine Installation Procedure***

**H. The Transfer.** This usually consists of entering the date and amount of the unpaid balance on both ledger and statement. Debit balances are added and printed in black; credit balances are subtracted and printed in red or otherwise designated. The net difference accumulated in the machine at the end of each 50 accounts should agree with the sub-totals on the pre-list. The final net total should be printed on a new ledger control sheet.

In some cases, the management may desire the individual unpaid items transferred rather than the total only. However, this is usually unnecessary because the old records can be retained for reference.

**Current Postings.** These should not be held up under any circumstances. If old balances cannot be transferred to the new records promptly, the current work should proceed regardless of the transfer. Later, the old balance may be posted as a debit entry and designated by a symbol or differently colored ribbon.

During the first month when the bookkeeper is learning to operate the new machine and system, it is a sensible safeguard to check the proof sheets with special care and take a trial balance at least once each week. Thereafter, the usual routine described in "Preparation and Procedure for Posting" can be followed.



## ***Mechanical Principles In Accounts Receivable***

### **Continuous Ledger Account**

The data that an accounting machine will be called upon to record on the receivable ledger or records directly connected with it, may be of greater variety than ordinarily undertaken with pen records. This is because a machine is capable of obtaining many desirable results as a by-product of the main debiting and crediting operation.

Not all the data below are likely to be required on one record in any one line of business, but different combinations of these requirements are common.

#### **Account Heading**

1. Name, address, account number, credit limit, etc.

#### **Debit Data**

2. Date, reference data and amount.

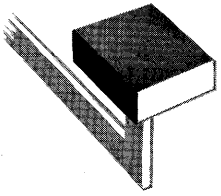
3. Date, description and amount of each item.
4. Total purchases made by customer for period to date.

#### **Credit Data**

5. Date, reference data and amount of payments.
6. Date, reference data and amount of other credits.
7. Total payments made by customer for period to date.

#### **Balance Data**

8. Balance owing today.
9. Balance or items past due—by months if necessary.
10. Balances or items future dated—by months if necessary.



# *Mechanical Principles In Accounts Receivable*

## **Product Data**

11. Distribution on the ledger of major classes of products purchased.
12. Distribution of entire line of products on auxiliary record.

## **Collection Data**

13. Customer's weekly or monthly statement.
14. Collection follow-up record.

## **Salesman's Data**

15. Total sales of each salesman.
16. Total collection for each salesman.
17. Total outstanding for each salesman.

## **Suggested Solutions**

**Item 1.** Any typing machine can be used for heading ledgers and statements.

**Item 2.** The date, invoice number and amount can be entered at one operation with a wide keyboard type of machine. Dates print automatically.

It is generally satisfactory to post the total only of the invoice when a detailed copy of it has been previously mailed to the customer. Manufacturers and wholesalers who sell to other business firms rather than to individuals, usually follow this plan.

**Item 3.** It is often the practice of retail stores to itemize each purchase on their ledgers and statements because they are dealing with individuals who do not keep systematic records.

**Item 4.** Records of purchases to date are often required for sales promotion purposes and for estimating the value of a customer's patronage or for use as a basis for quantity discounts.

**Items 5, 6 and 7.** These credit requirements are handled in a manner similar to the debit operation described above. In some cases, cash credits may be posted in one column and other credits, such as returns, allowances, etc., in a second column. Also, if desired, total debits and total credits may be shown.

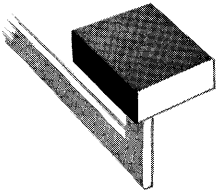
**Items 8, 9 and 10.** There are several methods of providing an age analysis of account balances. One plan is to record the analysis on the statements at the month's end. Another is to obtain it as a by-product of trial balance and balance forward operation at the end of the month. A third plan is to provide the analysis daily as a by-product of posting the ledger.

**Items 11 and 12.** Sales distribution by departments or products can readily be combined with the posting procedure. For simple distributions, such as 2% and 5% items, drugs and sundries, etc., two debit columns on the ledger are commonly used.

More numerous distributions can be made on the ledger vertically in one column, however, by using machines which permit register selection from the keyboard, as each item is entered in the debit column. After all of the items on an invoice are posted and stored in their respective registers, the new balance is printed. This detailed distribution method requires more vertical space on the ledger account and also on the customer's statement, if both records are prepared simultaneously, than if invoice totals only are posted.

When the "side" journal method is used, only the invoice totals are posted to the ledger account and statement. As a by-product of the proving operation the items are distributed to a column journal at the right. Each line of distribution on the journal must equal the posted invoice total; otherwise, a mechanical lock will occur.

If the total number of distributions required cannot be accommodated on a journal of reasonable width, a combination of horizontal and vertical distributions may be made. The columns on the journal may be used only for the most active classes, and the remaining items may be entered in one miscellaneous column but distributed into separate totals, by selecting registers from the keyboard. If the number of these miscellaneous distributions exceeds the number of available registers, all the excess classes may be accumulated in the last register but be printed individ-



## *Mechanical Principles In Accounts Receivable*

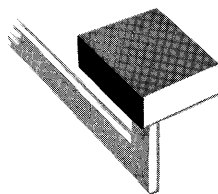
usually on unit distribution accounts, or if preferred, on tickets which may be sorted and re-capped.

**Items 13 and 14.** As previously described, there is a variety of ways to prepare a statement with a ledger. See "Customers' Statements".

Duplicate or triplicate copies make excellent unit media for following up collections and for credit posting purposes when payments are received. If desired, a multiple line collection register, showing an analysis of current and past due accounts can be prepared as a by-product of copying the month-end analysis notations from the ledger to the statement.

**Items 15, 16, and 17.** Usually the simplest and

most economical way to obtain a distribution of sales by salesmen is to recapitulate the invoices separately from the posting operation. However, when collections and accounts outstanding by salesmen are also desired every day, conditions usually favor grouping the accounts in the ledger by salesmen. In these cases both debits and credits are normally grouped by salesmen before posting. Therefore, most of the desired results can then be obtained on a journal created as a carbon record or by-product of the posting. It is only necessary to type the customer's name beside the amount posted. The journal will show the customer's name, amount paid and balance owing. If desired, outstanding balances can be further analyzed at the end of each period for each salesman's territory by current and past due accounts.



## *Preparation and Procedure for Posting*

In installations of only one or two machines, each operator usually performs all the work described below in connection with the accounts assigned to her. In larger installations, the chief book-keeper or supervisor may serve as a control clerk for all operators, and an assistant may do all the preparatory and proof checking work.

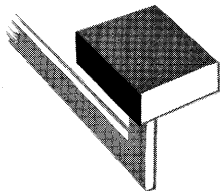
**Duties of Control Clerk.** Assigns operators to machines and generally directs the work to maintain an uninterrupted flow.

Has charge of the control account for each ledger, or operator, as well as the master accounts receivable control. Usually posts the proved machine totals to them.

Keeps a record of operator production and accuracy, as a basis for proficiency standards and wage incentives.

Receives all requests for accounting information to be obtained from the ledgers and handles





## Preparation and Procedure for Posting

them in such a manner as to avoid interrupting the operators.

**Duties of Assistant Control Clerk.** Each batch of invoices, cash slips and credit memos will ordinarily arrive in the bookkeeping department with a list attached. Each class of debits or credits will be separately prepared for posting. If the volume of each is small, two classifications may be posted together.

First, a sort is made according to machines. Each batch is then further sorted into account order, preferably by stuffing the media in front of each account to be posted. This not only speeds account location at the machine but provides an extra check on posting to the right account by previously matching the medium with the account. In large installations with low activity it may be advisable to remove all active accounts from the tray and after posting, refile them.

After the media are in account order, they should be pre-listed. If batches are large, totals should be printed for each group of 50 items. Operators will later clear their registers at these points to localize any posting errors. The sum of the pre-lists from all operators should equal the departmental total. The items appearing on the machine proof journal as a result of posting will be in the same order as those appearing on the pre-lists, and will facilitate checking.

If operators are to check for their own posting errors, the pre-list will be given to them with the media. In many cases, operators are instructed merely to mark obvious errors on the journal. All further balancing will be done by the assistant or control clerk. Idle machine time is thus reduced.

**Duties of the Machine Operator.** Receives each batch of posting media from the assistant, in account order, with list attached if desirable.

Clears the machine to show clear symbols for crossfooter and each register on the proof journal before beginning the posting.

Posts each account and replaces it in an offset position in the binder. Checks off the medium and turns it face down.

At the end of the batch, prints all register accumulations at the bottom of the proof journal and establishes the accuracy of posting. Correction of any errors must be plainly shown on the journal.

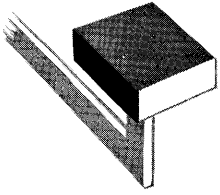
Posts the batch total to the ledger control account or passes it with media and proof journal to the control clerk, properly initialed. Resets the posted accounts into position.

### Miscellaneous Procedures

In both large and small installations, efficiency demands specializing each routine operation and performing one at a time. Both speed and accuracy are promoted thereby. At the machine, particularly, an uninterrupted flow of work should be maintained. Suggestions on how to overcome some of the common obstacles to these objectives follow:

**"Look-ups" by Operator.** Posting media that are not clear as to terms, back orders, returns, allowances, etc., often cause considerable interruption to efficient posting by requiring frequent look-ups in the files or consultation with others. Where this is common, the operator should thumb through all the media before beginning the posting and clear up all doubtful matters at that time.

**Opening New Accounts.** When an operator turns up an invoice for which there is no account in the ledger, it may not be evident whether a new sheet needs to be opened or the old one has been temporarily removed. If a new one is opened by mistake, unnecessary work and confusion result. To overcome this, the first charge to come through for a new account should be plainly stamped as such. An additional safeguard is to have the Credit Department head the new account sheet when credit is first approved and let it accompany the charge to the bookkeeper.



## *Preparation and Procedure for Posting*

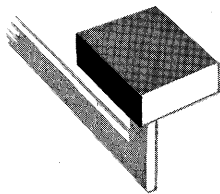
As old sheets are filled during posting, it is not always desirable to interrupt posting to head a new one at that time. Make the posting on a new ledger sheet, then offset it in the binder next to the old account. When posting is finished, head all new sheets at one run.

**Reference to Accounts by Credit Department.** The Credit and Collection Departments often interrupt posting routine. They may remove an account for inspection from an offset ledger position and then carelessly replace it in the normal position. Perhaps they will take it to another desk pending investigation and fail to return it, until its loss necessitates search for the account at trial balance time.

Short posting runs help overcome this by holding up relatively few accounts at the machine at

one time. The remainder should be locked in the binder or tray and only the entire ledger be removed for reference when necessary. If one account must be taken, replace it with an "out-card" that conspicuously shows its location.

Often a duplicate of the monthly statement furnished to the Credit Department for their information is sufficient to relieve most of this reference, particularly when items comprising the past due balance are detailed on the statement. In other cases, a separate credit record, like many department stores use, may be justified. To this will usually be posted, by hand or machine, the total purchases from the statement copy each month-end and cash or other credits daily as received.



## *Proof and Control Methods*

In pen-and-ink ledger posting, it is not the general practice to foot the accounts and extend the balances until the end of the month, or other period. Errors are usually not detected until the trial balance is then taken, and it may be necessary to check all the postings for the entire period in order to locate them. As a result, a peak load of extra work occurs when time is most valuable.

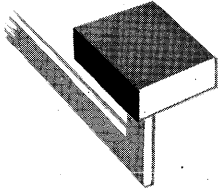
Under mechanical methods the balances are usually extended and proved as the postings are made so that the accounts will be accurate and up to date at all times. Postings should be proved either individually as they are made, or in relatively small batches in order to localize errors more easily.

Some of the more important conditions that determine the method of proof to be used are:

- (a) Nature of accounts and accounting data.
- (b) Degree of protection desired by user.
- (c) Type of equipment to be used.
- (d) Volume of work and daily activity of accounts.
- (e) Plan of posting—unit or dual.
- (f) Necessity for referring to accounts immediately after posting.
- (g) Efficiency of operator.
- (h) Operating cost.

There are three main proofs required under mechanical posting. They are:

1. That the old balances were picked up correctly.



## Proof and Control Methods

.00			.00	.00	.00	.00
125.79	JUL 27 5-	3563	210.57		336.36	125.79
83.26	JUL 27 5-	3564	159.71		242.97	83.26
135.00	JUL 27 5-	C/M 327		27.95-	107.05	135.00
10.66	JUL 27 5-	3565	535.00		545.66	10.66
794.20	JUL 27 5-	3566	366.55		1,160.75	794.20
37.50	JUL 27 5-	3567	752.15		789.65	37.50
.00	<b>TOTALS</b>		<b>2,023.98</b>	<b>27.95</b>	<b>3,182.44</b>	<b>1,186.41</b>

NAME	Jones & Simpson Co	ACCOUNT NO.
ADDRESS	7539 Pengree Ave	SHEET NO.

DATE	REFERENCE	DEBITS	CREDITS	BALANCE
BALANCE FORWARDED				
JUL 7 5-	2345	37.50		37.50
JUL 27 5-	3567	752.15		789.65

2. That all items were posted correctly and that none were omitted or posted twice.
3. That the new balances are correct.

**All Proof Methods Based on Repetition.** This is an axiom that applies both to pen-and-ink and mechanical posting. If the results of two similar operations agree, it is assumed that the work has been performed correctly.

To prove that the old balances were picked up correctly when making the posting, they are usually handled a second time, either while posting or before or after the posting run.

To prove that the correct amounts were posted, that none were omitted or posted twice, the items are usually automatically accumulated in the machine as they are posted. If the total of this accumulation agrees with a total of the items obtained at some other time, usually before the posting run, it is assumed that the correct amounts were posted.

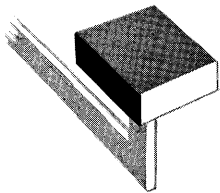
To prove that the cross-computation has produced correct new balances, it is necessary to ob-

tain the difference between the old balances and the new balances and compare it with the pre-listing of the items. This may be done individually with each posting or by batches. By making a carbon copy of the postings on a proof sheet, checking for errors is greatly facilitated.

There are numerous variations by which the above results are obtained under different conditions. Only a few common ones are described below.

**The Multiple Register Proof Method.** This is a batch method of proof, that is, the batch of media is proved as a whole.

The old balance is first picked up on the ledger, the charge entered, and the new balance is printed from the crossfooter. Then the old balance is picked up again, either at the right or at the left after the carriage returns. The charges, new balances and second pick-ups are accumulated in registers. (The first pick-up need not be accumulated because it is reflected in the new balance.)



## Proof and Control Methods

The register total of charges must equal the pre-list of the items. The register total of second pick-ups plus the total of the charges should equal the register total of the new balances. This proves that each of the old balances was entered twice alike and therefore they are presumed to be accurate, and that the new balances were cross-computed correctly.

This is a popular proof method because the media are handled only once for posting and proof and the minimum of mechanical operations is required.

Since the batch of items is proved as a whole, the media and accounts should be kept intact until proof is established.

**“Direct Proof” Method.** This is a line proof as contrasted with a batch proof. The posting is done in the usual manner up to the printing of the new balance. This is sub-totaled and retained in the crossfooter instead of being cleared. The old balance is then subtracted from it. The difference, which should equal the amount of the invoice or payments posted, is printed in the proof column on the journal either as a positive or negative amount, depending upon whether the item posted was a charge or a credit.

The main advantages of this method are as follows:

- (a) The posting medium can be visually checked against the “proof” amount as the posting to each account is completed, thereby localizing errors to any account at that time.
- (b) Ledgers are available for reference or other uses immediately upon posting. Not necessary to offset the accounts.
- (c) Easy for an operator to learn and use.

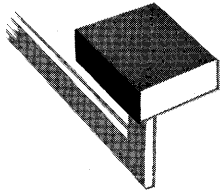
**“Line Lock” Method.** Accounting machines can be built to lock if the two pick-ups are not alike, thus notifying the operator that an error has oc-

curred. In the “second pick-up” method this is accomplished by causing the first pick-up to add temporarily in an extra crossfooter, or register, and causing the second pick-up to subtract from it. If a difference remains, a lock will occur, and the operator cannot proceed until the error is corrected. In the direct proof method a similar “line lock” is obtained in conjunction with a distribution of the items which is made at the same time the ledger is posted. In either case the debit or credit is separately accumulated for proof against a pre-list, as previously described.

**“Control Account” or “Trial Balance” Method.** This is used only where high daily activity prevails—at least 50% of all accounts being posted. A control account is kept, showing the total of all present balances. As today’s accounts are posted and offset, the new balances are automatically accumulated in a register. The present balances on the accounts which remain inset in the ledger, are then listed for a total. The sum of these two amounts, representing today’s control total, less yesterday’s control total, should equal the sum of items posted.

This method is most economical to use when more than 50% of accounts are being posted, and therefore, less than 50% need to be listed to complete the proof. Otherwise, there would be fewer amounts to list for completion of the proof if the “second pick-up” method were used. Although this control method saves a second pick-up during the posting operation and speeds up posting to that extent, the localization of errors is not as easy as with the “second pick-up” or “direct proof” methods.

**Trial Balance Procedures.** Although proof of posting is normally established daily under mechanical methods, a trial run of the account balances is desirable not only at the month-end but occasionally during the month to prove their agreement with the control account. This saves valuable time at the month-end by detecting:



## Proof and Control Methods

.00		.00	.00		.00	
125.79	JUL 27 5- 3563	210.57		336.36	125.79-	210.57
83.26	JUL 27 5- 3564	159.71		242.97	83.26-	159.71
135.00	JUL 27 5- C/M 327		27.95-	107.05	135.00-	27.95 CR
10.66	JUL 27 5- 3565	535.00		545.66	10.66-	535.00
794.20	JUL 27 5- 3566	366.55		1,160.75	794.20-	366.55
37.50	JUL 27 5- 3567	752.15		789.65	37.50-	752.15
.00		2,023.98	27.95			1,996.03

NAME	Jones & Simpson Co	ACCOUNT NO.
ADDRESS	7539 Pengree Ave	SHEET NO.

DATE	REFERENCE	DEBITS	CREDITS	BALANCE
BALANCE FORWARDED				
JUL 7 5-	2345	37.50		37.50
JUL 27 5-	3567	752.15		789.65

- (a) Accounts missing from the ledger.
- (b) Failure to prove the posting or to post the entry to the control account.
- (c) Failure to correct an error properly.

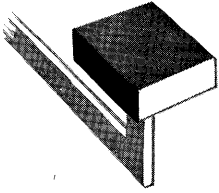
To help in localizing errors, there should be a subsidiary control account with each ledger or with the number of accounts involved in a normal posting batch of 50 to 100 items. If 100 items usually affect about one account in five there would be 500 accounts under each control. The total of each batch of items should be posted each day to the control account and checked off the proof sheet. Proof of posting and the control account itself should also be shown on the proof

sheet. The most common routine for checking a trial balance is as follows:

1. Check the account balances to the trial balance list.
2. Check batch totals on the proof sheet against pre-list totals and the control account.
3. Check errors on the proof journal and their corrections back to the accounts.
4. Check for missing ledger sheets.

Ordinarily, the accuracy of mechanical methods and the daily proof of posting is such that no month-end difficulty will be experienced, and customers' statements can be released promptly.





## Customers' Statements

The main object of rendering a statement to a customer is to collect the account. Sufficient information should be furnished on it so the customer can reconcile it with his records and be satisfied that it is correct. If too much detail is furnished, it may be confusing to the customer and also involve unnecessary work. Ordinarily, the date and amount, and if desired, the number of the invoice are adequate. Credits are designated also by abbreviated description, in most mechanical installations.

### A. Unit Plans—Ledger and Statement in One Operation

A unit plan is most suitable where it is desired to furnish the customer with a record of every debit and credit posted to the ledger during the period even though some may offset each other. However, if too many of the month's charges are offset by payments before the statement is rendered, a form showing open items only, prepared at the month-end, may be preferable. The Unit Plan is economical, of course, because all entries for the combined ledger and statement operation are handled only once.

The main form arrangements and mechanical variations for writing both records together are:

- (1) **Original statement and duplicate ledger.** The ledger account is created as a carbon record. Statement copies may be prepared as additional carbon records.
- (2) **Original statement and original ledger.** The forms are inserted beside each other for posting. Items and balances entered on one record are mechanically repeat-printed to the other. Where an original ledger is desired this plan is excellent. In this and the former method, the statement may omit the daily balance column if desired, in which case the last balance before mailing will be copied from the ledger to the statement.
- (3) **Original statement and original ledger (skeletonized).** Items are entered individually

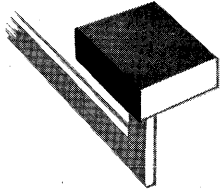
on the statement, and only the total of the items is printed on the ledger from a register in which they are accumulated. Credits are posted in detail to both records. This plan has the advantage of condensing numerous small items on the ledger without sacrificing a detailed statement for the customer. A duplicate of the statement is retained for credit reference purposes.

(4) **Original Statement and Original Ledger (Credit History Record).** All items—charges, payments and returns—are filed by customer during the month. At the billing date these are individually entered on the statement and the totals only of the items and the account balance are printed on the ledger. This plan has the advantage of condensing one month's activity into one line of posting on the ledger and still provides the necessary information for credit reference purposes.

### B. Dual Plans—Statement Posted Separately from Ledger

Dual plans offer considerable variation in the amount of detail which may be furnished the customer. When all items are posted daily to the statement as well as to the ledger in separate operations, naturally somewhat more work is entailed. To offset this, however, separate operations furnish some assistance to each other in establishing a good proof of accuracy. Less work will be involved daily, if the preparation of statements is deferred until the month-end so that the open items only may be shown, but some extra work will be required at the month-end when clerical time is most valuable.

- (1) **All items entered.** Each day after the ledger is posted, the same items are entered on the statement. This plan is common in many banks.
- (2) **Open items only.** The ledger will be posted daily as usual. At the end of the period any charges remaining unpaid on the ledger together with partial credits will be listed on the



## *Customers' Statements*

statement. This form is easy for a customer to understand because all closed transactions are omitted.

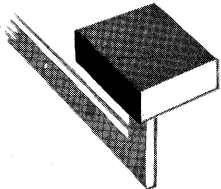
(3) **Total only with tickets attached.** Some retailers, gasoline distributors, etc., may prefer to render a statement showing the total due in a lump sum. In such cases it is a common practice to attach copies of the sales tickets. The plan is used chiefly where customers habitually fail to keep the original copies of sales tickets given them and require the store to furnish them duplicates before paying their accounts.

**Miscellaneous Suggestions.** The use of addressing machines can save time in heading statements each month. However, if changes in the name

plates are required too frequently it may be preferable to type the headings. This should be begun before the month-end to avoid peak loads when time is most valuable.

To assure early mailing and prompt collections, an increasing number of firms close customers' statements on or about the 28th. Many stamp them "charges after the 28th will be included on next month's statement."

Duplicate or triplicate statement copies are useful in assisting the credit department to follow up collections by mailing one of them as a reminder to each account remaining unpaid on the 15th. Another copy is useful as a credit posting medium when payment is received.



## *Measuring the Results of Accounting Mechanization*

When an accounting machine is properly installed, benefits can be obtained that are impossible by manual methods—or at least impracticable without prohibitive cost. This is true in both large and small offices, the only variance being in the relative value of certain factors.

### **Mechanical Aids to Routine Accounting**

Many manual accounting operations are either eliminated or simplified by machines. For example:

No dipping of a pen in an ink-well—and no blotting.

Machine printing is obviously more legible than penmanship.

It is faster to enter figures on a keyboard than write them manually.

Several forms may be collated and prepared in one writing.

Dates are automatic—not only faster but uniform and accurate.

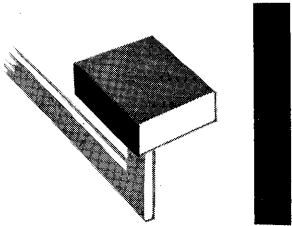
Addition and subtraction on each account as well as the accumulation of items and balances on all accounts are automatically performed.

Balances and totals are printed by a single key depression, or may be entirely automatic; therefore, they are more rapidly and accurately entered.

Proof of all operations is easier to obtain by mechanical methods than by manual methods.

A more even flow of work is obtained—month-end work is reduced.

Where volume is sufficiently large to keep a machine busy on one application, the machine can be designed especially for that work by being equipped with automatic controls to eliminate every possible manual operation. Some machines, for example, are almost entirely automatic, after the old balance and the items are entered.



# Measuring the Results of Accounting Mechanization

## Speed Factors in Posting

Since saving of time also results in a saving of money and increases profits, the factors that promote or retard speed in mechanical accounting should always be understood by the accounting systems man.

An accounting machine may have a theoretical mechanical operation of more than 7,000 machine strokes an hour. When applied in the usual Accounts Receivable installation, the machine may reasonably be expected to post from 300 to 1500 accounts a day. Although any result within this range is considerably faster and of better quality than manual methods usually produce, some of the factors influencing production can often be controlled to good advantage.

- A. Non-productive time.** Only an uninterrupted flow of work can permit any machine to produce the results of which it is capable. Factors that cause idle machine time are the operator's personal time out, frequent delay in preparing the posting media for the machine, interruptions for reference to accounts, necessary mechanical service, etc.
- B. Operator's skill.** Adequate training is essential. A poor operator will retard the best machine. Of course, accuracy should be developed before speed. Each manual motion should be studied and synchronized with relation to the media, forms, and machine's operation, so an easy, smooth flowing sequence of operations will result. Naturally, any automatic features that relieve the operator's efforts make the development of skill easier to attain.
- C. Physical layout.** The accessories must be selected for the particular requirements of each installation. Proper binders, indexes, media holders, desk, chairs, stand, etc., will economize motions, reduce fatigue and help produce better results.
- D. Assistance rendered to operator.** This is important in estimating the capacity of the operator and machine. If an assistant pre-lists the media, stuffs them in the ledgers, helps check out errors, etc., an operator's capacity for continuous work at the machine is greatly increased. Comparisons between different

installations cannot be reliable without consideration of these factors.

- E. Design of Machine.** It is easy to accomplish practically any accounting results desired where the manufacturer has available a large variety of machines for different applications and lines of business, and a wide selection of optional features that meet special requirements.

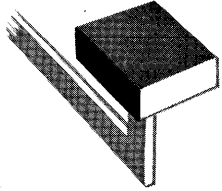
Automatic features—possible on machines with moving carriages—eliminate the "human element" and its mistakes, forgetfulness, fatigue, indifference, etc., and promote speed and accuracy.

- F. Media and Forms.** Paper-handling time is a factor which can greatly increase or retard production. Speed is promoted by media made of correct paper stock, unit in form, easy to read and easy to handle. Speed is also materially promoted by a well-arranged ledger indexing, the right carbon handling method and a modern form aligning mechanism.

It is somewhat faster, in general, to select, insert, align and post a single form than two or three related forms together. In most cases, however, the combined result is faster than handling and posting the three forms separately. Besides a better accounting control will be established.

- G. Data to be recorded.** Estimates and comparisons of machine posting speed must consider the extent of the data that are recorded. The data which permit the greatest speed involve as few columnar stops as possible, uniform dates that can be automatically repeated, simple reference data and small amounts. More than one entry to each account helps to produce the maximum number of entries with the minimum of paper handling. Of course, balances should be printed by a single key depression or automatically, rather than copied one digit at a time.

In some cases it may be preferable to use a "straight line" method of posting without typewritten description by making entries vertically in one column rather than across several columns. This is a rapid operation on a full keyboard bookkeeping machine, because



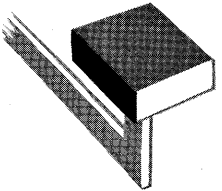
## *Measuring the Results of Accounting Mechanization*

date, number and amount can be entered simultaneously and the machine will space the form vertically.

In a small office, adaptability of a machine to a variety of small-volume jobs is often of more importance than speed. With modern machines it is not necessary to sacrifice the advantages of automatic features to obtain this adaptability. Control units, for example, are designed with the thought of making the machine most efficient for several accounting jobs, regardless of volume. Each control unit is easily removed from the machine and is interchangeable with other control units. As a result, these operations which the machine performs automatically cannot be forgotten or done wrong. Inexperienced clerks

can thereby more easily become efficient operators.

When complete accounting systemization is involved, the smaller office often benefits from mechanization more than a large office. The owner of a small business usually cannot afford a permanent systems department to revise old procedures and establish new ones. Neither can a highly efficient clerical staff always be maintained. A machine helps to overcome some of these handicaps by becoming a controlling factor in assuring that whatever system is devised will actually be carried out. It is well known that it is easier to follow definite procedures, obtain reliable proofs and keep the records up to date by mechanical methods than by manual methods.



## *Miscellaneous*

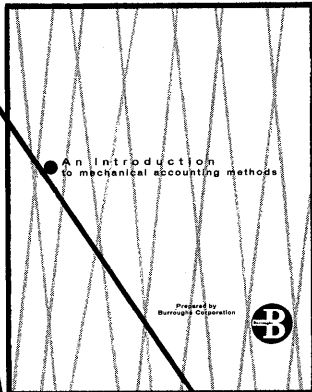
### **When Does Mechanization Cease to Be Profitable in Any Office?**

This question is often asked. The president of a large industrial organization recently said, "You can afford to spend \$15,000 to do the work of a \$1,800 clerk." He meant that an investment of \$15,000 in mechanical equipment, assuming a machine life of 10 years, is less than the total that would be expended over a like period for clerical help at \$1,800 a year. Price is different from cost.

In a large office this principle is illustrated in another manner. Most business men advocate the use of a figuring machine for every desk where there is figuring work to do. Is this economical? Let us say that manual figuring methods are used at 26 desks. For \$15,000, approximately equivalent to the real cost of one clerk as described above, each of 25 clerks could be equipped with a \$600

machine—a tool to make them more efficient. There would then be 25 efficient clerks instead of 26 inefficient ones.

In a smaller office with only a single clerk, mechanization also results in direct savings. For example, as the small business grows, it eventually becomes necessary to employ an extra clerk. This cannot be deferred until there are eight full hours of extra work to do, but is done when there is only one hour's more work than the present clerk can handle. Then, for 12½% more work, labor cost is frequently increased 100%. Mechanization of the accounting routine would usually save this additional salary or at least defer it for a considerable time. This would defray the machine's cost in about a year and save many years of additional salary expense for the proprietor, besides improving his accounting records.



*Machine*



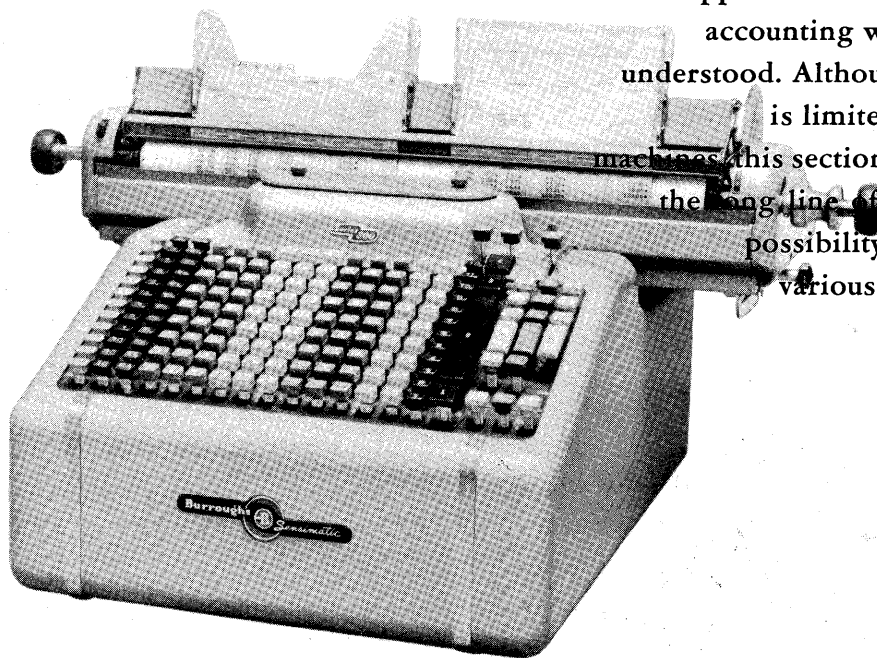
*Section*

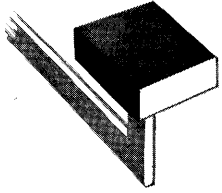
# Foreword

The scope of mechanization of accounting and other office records is as broad as business itself. It is neither practical nor desirable to cover the entire range of accounting and record keeping applications.

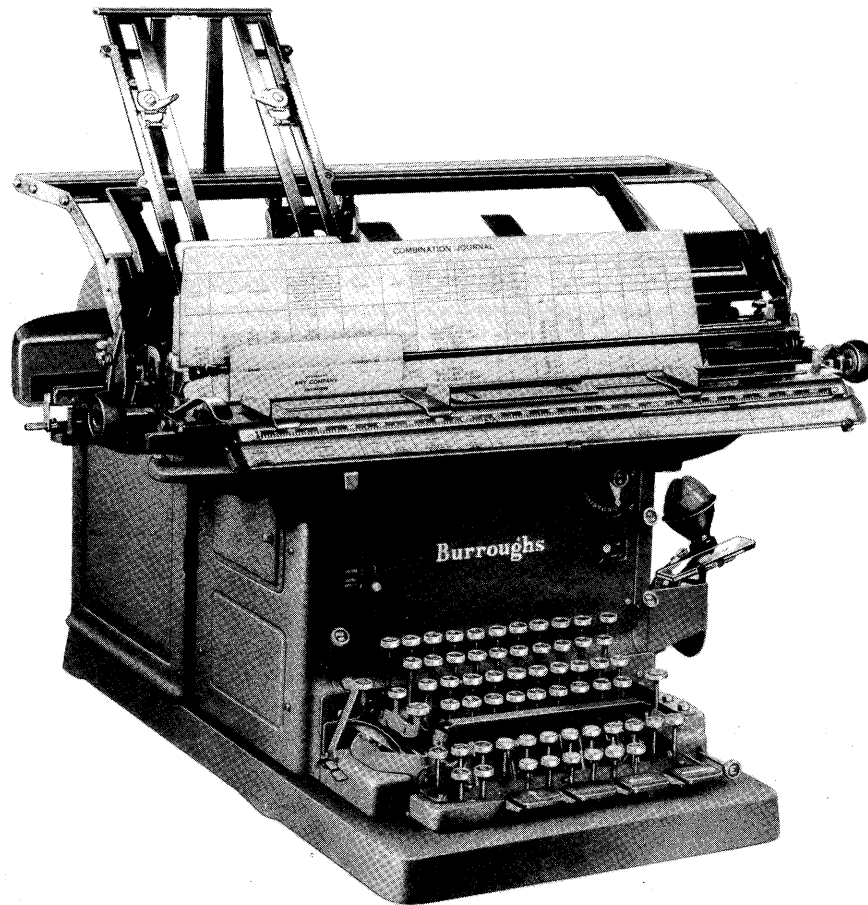
This section is broken down into four parts. Each of the first three is devoted to the study of a basic type of accounting machine and a discussion of the more common accounting applications on which it is used. The fourth section deals with other figuring machines and their application to a variety of records.

By this mode of presentation, it is felt that the application of accounting machines to accounting work may be more easily understood. Although the detail discussion is limited to three basic types of machines, this section will afford a glimpse of the long line of machines and limitless possibility of their applications to various phases of office routine.



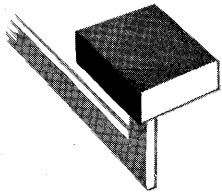


## *Typewriter Accounting Machine*



As is evident from the name, this machine is used where typewritten description or an explanation of the accounting entry is required. It is by no means, however, limited to that type of applica-

tions. Because of its flexibility, it is frequently applied to two or more applications, some of which may require descriptive explanations.

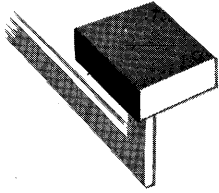


## *Accounts Receivable*

In our study of this machine, we shall apply it to Accounts Receivable. First, however, let us review the steps required in handling this application on a manual basis:

### **DAILY**

1. Journalize sales
2. Add and record the totals
3. Journalize cash receipts



## Accounts Receivable

4. Add and record the totals
5. Post charges and credit memos to the customers' accounts
6. Add these postings and prove against the Sales Journal
7. Post cash receipts to the customers' accounts
8. Add these postings and prove against the Cash Receipts Journal

### MONTHLY

1. Foot the Sales Journal and post to the accounts affected
2. Foot the Cash Receipts Journal and post to the accounts affected
3. Foot the debit column of each customer's account
4. Foot the credit column of each customer's account
5. Strike a balance on each customer's account
6. Take a trial balance of the customers' accounts
7. Prepare a statement for each customer
8. Prove the balance on the statement with the balance on the ledger account
9. Mail the statements

The outstanding advantages of machine methods over manual methods are the ability of collation and preparation of several forms simultaneously and the establishment of figure totals as a by-product of the posting operation.

In machine posting, the routine may be broken down as follows:

### DAILY

1. Pre-list the posting media
2. Post the debits and credits to the ledger, extending the balance on each account, and obtain the Statement and Journal entries as a by-product

### MONTHLY

1. Pull and mail customers' statements
2. Transfer balances to next month's statements, and obtain the trial balance simultaneously.

The requirements of an accounts receivable system vary from industry to industry and from one company to the next within the same industry. Regardless of what other information may also be required, journalizing, posting of a ledger account and the preparation of a customer's statement are usually present.

Journalizing of sales may be done in total or in detail. Either plan can be readily handled with this type of machine. If journal entries are made in total, then the machine operation is reduced to the posting of ledger, statement and proof journal—which is a continuous roll journal with carbon facing—in one operation. The proof journal contains a complete transcript of every entry made.

For this operation a machine with one cross-footer and four registers and the Multiple Register Proof Method are usually used. The cross-footer is used to cross-add or subtract to arrive at the account balance, and the four registers for down footing of charges, credits, new balances and proof balances. Thus the necessary figures for proof are accumulated automatically as the accounts are posted.

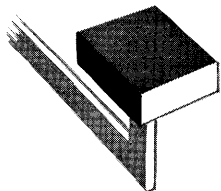
Where journalizing in detail is desired, it can be obtained simply as a by-product of the posting operation. All that is required is to widen the proof journal to provide space for typing the customer's name and columns for the necessary journal entries. This journal may be in unit sheets with printed headings and is then known as the Sales Journal.

Line-lock proof is an excellent proof method to use with this operation.

The Sales Journal may be further expanded to provide for distribution of sales by departments, during the posting operation. This is an excellent way of obtaining distribution where the bulk of the activity is limited to a few active departments. A miscellaneous column is provided for the relatively inactive departments, and whenever an entry is made in that column, the department number or account number is designated.

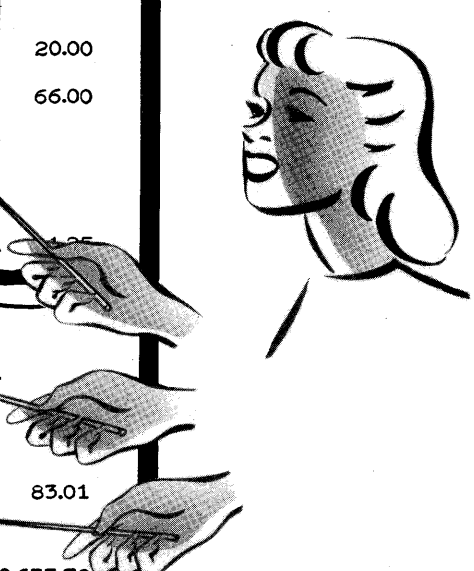
In machine accounting, the totals provided through the machine operation may be posted to the appropriate general ledger accounts daily or may be brought forward and then posted to the general ledger account in total at the end of the month. The miscellaneous distribution items, of





# Accounts Receivable

64.75	JAN 25 5-	SHOES	8.75		73.50	...	64.75		
24.91	JAN 25 5-	GLOVS	4.58						
		BOY'S SPT JACKT	7.75						
		TAX	.39		37.63	...	24.91		
91.20									
<p>NAME MRS W E KENNEDY ACCOUNT NO. 91.20</p> <p>1342 E DARWIN ST</p> <p>ADDRESS CITY SHEET NO. 28.69</p>									
28.69									
15.35									
					DATE	REFERENCE	DEBITS	CREDITS	BALANCE
18.64	BALANCE FORWARDED								15.35
									41.26
									44.26
STATEMENT ANY COMPANY ANYWHERE									
									18.64
									55.60
									113.23
									16.38
									75.46
									14.93
									78.65
									24.13
									83.01
									55.60
JAN 4 5-	SHIRT	2.50							109.74
	GLOVS	3.45							
	SHOES	5.00							20.00
	SUIT	45.00							
	TAX	1.68			113.23				66.00
JAN 11 5	UNDWR	1.00							
	TIE	1.75							
	COAT	25.00							
	BAG	1.50							
	TAX	1.18							
	CASH		55.60						
	RET'D		5.05		83.01				41.90
JAN 25 5	SOX	1.00							
	HAT	5.00							
	HOSE	1.75							
	DRESS	18.20							
	TAX	.78			109.74				
83.01	JAN 25 5	SOX	1.00						
		HAT	5.00						
		HOSE	1.75						
		DRESS	18.20						
		TAX	.78						
					109.74				83.01
	JAN 25 5-	TOTALS TODAY	935.20						
					426.35				9,144.64
									8,635.79
									.00



# SALES JOURNAL

PREVIOUS BALANCE	DATE	REFERENCE	CHARGES	CREDITS	BALANCE	PROOF	NAME	SALES	ACCT. NO.	MISC.
.00	JUL 27 5-	3563	.00		336.36	125.79	CENTRAL DISTRIBUTING CO	.00		.00
125.79	JUL 27 5-	3564	210.57		242.97	83.26	HARRISON MFG CO	210.57		
83.26	JUL 27 5-	C/M 327	159.71	27.95	107.15	135.00	NATIONAL ENG CO	159.71		
135.00	JUL 27 5-	3565	535.00		545.66	10.66	CITY TOOL REPAIR CO	27.95	25-357	535.00
10.66	JUL 27 5-	3566	366.55		1,160.75	794.20	JOHNSON SERVICE CO	366.55		
794.20	JUL 27 5-	3567	752.15		789.65	37.50	JONES & SIMPSON CO	752.15		
37.50		TOTALS	1,996.03					1,461.03		535.00
.00										535.00

**Burroughs** ®

STATEMENT

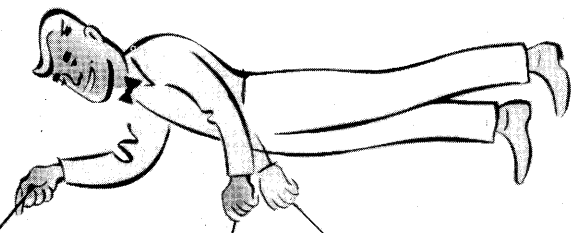
NAME Jones & Simpson Co. ACCOUNT NO. \_\_\_\_\_  
 ADDRESS 7539 Pengree Ave SHEET NO. \_\_\_\_\_

DATE	REFERENCE	DEBITS	CREDITS	BALANCE
JUL 7 5-	2345	37.50		37.50
JUL 27 5-	3567	752.15		789.65
BALANCE FORWARDED				
				37.50
				789.65

PLEASE RETURN THIS STUB WITH YOUR CHECK. AMOUNT ENCLOSED \$ \_\_\_\_\_

DATE	REFERENCE	CHARGES	CREDITS	BALANCE
JUL 7 5-	2345	37.50		37.50
JUL 27 5-	3567	752.15		789.65
BALANCE FORWARDED				
				37.50
				789.65

Jones & Simpson Co.  
 7539 Pengree Ave  
 City



**Ledger, Statement and Sales Journal  
 Prepared Simultaneously**

# SALES JOURNAL

PREVIOUS BALANCE	DATE	REFERENCE	CHARGES	CREDITS	BALANCE	PROOF	NAME	ACCT. NO.	MISC.	DATE	A	B	C	D	E	F
31.65	JAN 95-	8105 NET	25.00		56.65	31.65	AMERICAN CORP		.00	JAN 95-	.00	.00	.00	.00	.00	.00
125.00	JAN 95-	8196 NET 10	137.50		270.70	125.00	ANDREWS AND JORDAN	32	8.20	JAN 95-	15.00	137.50	10.00			
134.86	JAN 95-	117 C M	8.20	3.20-	131.66	134.86	BRAMWOOD, DAVIS CO			JAN 95-	3.20					
6.72	JAN 95-	8332 NET	39.50		39.50	6.72	COLL INGWOOD CORP			JAN 95-	117.00	13.25-	20.00	19.50		
8.25	JAN 95-	8537 NET 60	117.00		110.28	8.25	DAVIS SUPPLY CO			JAN 95-	117.00					
146.50	JAN 95-	119 C M	5.00 <sup>OR</sup>	13.25-	5.00	146.50	GRAHAM SALES			JAN 95-	122.25					
	JAN 95-	8602 NET	122.25		268.75		R A JACKSON CO			JAN 95-	122.25					
			433.00		1,275.00		TOTALS TODAY		8.20	JAN 95-	251.05	124.25	10.00	20.00	19.50	.00
			1,275.00				TOTALS PREVIOUS		35.00	JAN 95-	716.50	310.47	64.50	52.17	56.50	39.86
			1,708.00				TOTALS TO DATE		43.20	JAN 95-	967.55	434.72	74.50	72.17	76.00	39.86

If desired, miscellaneous distribution amounts may be recorded on individual account sheets or unit tickets during the posting operation.

**DISTRIBUTION TICKET**  
**Burroughs**

REFERENCE	ACCT. NO.	AMOUNT	DATE
	32	8.20	JAN 95-

MISCELLANEOUS  
DISTRIBUTION LEDGER

ACCOUNT NAME	Dept X	ACCOUNT NO.	SHEET NO.
		32	

REFERENCE	ACCT. NO.	AMOUNT	DATE
	32	8.20	JAN 95-

NAME R A JACKSON CO      ACCOUNT NO. \_\_\_\_\_  
ADDRESS 1833 W DAVIS ST      SHEET NO. 2

DATE	REFERENCE	DEBITS	CREDITS	BALANCE
JAN 95-	8602 NET	122.25		146.50
				268.75

STATEMENT  
ANY COMPANY  
ANYWHERE

R A JACKSON CO  
1833 W DAVIS ST  
ANYWHERE

PLEASE RETURN THIS STUB WITH YOUR CHECK. AMOUNT CLOSED \$ \_\_\_\_\_

DATE	REFERENCE	CHARGES	CREDITS	BALANCE
JAN 95-	8602 NET	122.25		146.50
				268.75

Ledger, Statement and Sales Journal with Distribution Prepared Simultaneously

# CASH RECEIPTS JOURNAL

REVIOUS BALANCE	DATE	REFERENCE	CASH ON ACCOUNT	BALANCE	PROOF	NAME	CASH	DATE	DISCOUNT	A	B	C	MISC.	ACCT. NO.
47.50	JAN 95-	CASH	.00	15.85	47.50	ADAMS AND SON	.00	JAN 95-	.00	.00				
65.25	JAN 95-	CASH	31.65	.00	65.25	BOSWELL, JONES AND CO	31.02	JAN 95-	.63					
	JAN 95-	CASH	45.00	15.00 CR		CUNNINGHAM CO	42.75	JAN 95-	2.25					
	JAN 95-	DEP	20.25	32.25 CR		DUNBAR CORP	20.25	JAN 95-						
27.25	JAN 95-	CASH	5.00	27.25	27.25	GREAT LAKES SUPPLY CO	5.00	JAN 95-						
175.00	JAN 95-	CASH	175.00	.00	175.00	R A JACKSON CO	151.25	JAN 95-	23.75					
268.75	JAN 95-	CASH	24.50	244.25	268.75	COUNTER SALES	24.50	JAN 95-		12.50				
	JAN 95-	OTHER RECEIPTS				C O D SALES	3.25	JAN 95-			3.25			
						MISC RECEIPTS	6.00	JAN 95-					6.00	114
			316.40			TOTALS TODAY	311.52	JAN 95-	26.63	12.50	3.25	.00	6.00	
			500.00			TOTALS PREVIOUS	530.00	JAN 95-	35.00	20.50	10.00	29.50	5.00	
			816.40			TOTALS TO DATE	841.52	JAN 95-	61.63	33.00	13.25	29.50	11.00	



ACCOUNT NO. \_\_\_\_\_  
SHEET NO. 2

NAME R A JACKSON CO  
ADDRESS 1833 W DAVIS ST

DATE	REFERENCE	DEBITS	CREDITS	BALANCE
JAN 95-	8602 NET	122.25		146.50
JAN 95-	CASH		24.50	268.75
				244.25

STATEMENT  
ANY COMPANY  
ANYWHERE

R A JACKSON CO  
1833 W DAVIS ST  
ANYWHERE

PLEASE RETURN THIS STUB WITH YOUR CHECK. AMOUNT ENCLOSED \$ \_\_\_\_\_

DATE	REFERENCE	CHARGES	CREDITS	BALANCE
JAN 95-	8602 NET	122.25		146.50
JAN 95-	CASH		24.50	268.75
				244.25

**FIRST NATIONAL BANK**  
BANK OF THE STATE OF NEW YORK

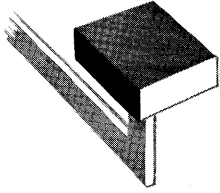
ANY COMPANY  
BURROUGHSVILLE JAN 9 1955

CURRENCY 21.00  
SILVER .75  
CHECKS AS FOLLOWS

31.02	21.00
42.75	42.75
20.25	20.25
15.00	15.00
5.00	5.00
151.25	151.25
24.50	24.50
<b>TOTAL</b>	<b>311.52</b>

If desired, a bank deposit slip  
can be prepared at a separate  
operation, or obtained as a by-  
product of posting cash receipts

**Ledger, Statement and Cash Receipts Journal with Distribution Prepared Simultaneously**



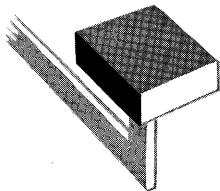
## Accounts Receivable

course, need to be posted daily from the sales journal. If desired, a distribution ticket may be prepared at the time of entering a miscellaneous distribution on the Sales Journal. These tickets are then sorted into account order, summarized and posted in total to the appropriate ledger accounts. Another choice available under this plan is to insert the ledger account itself into the machine and the distribution made directly onto the ledger account. Periodically, or at the end of the month, these ledger accounts are footed to obtain the account totals.

Proof of accuracy in any accounting setup, whether manual or machine methods are used, is of utmost importance. Under a manual method, however, it is difficult to obtain on a day to day basis and therefore very often nothing is done about it. The trial balance at the end of the month is used to serve as the basis for accuracy of all the posting activities during the month. As a consequence, if the trial balance is out, the error may have occurred in any one of the detailed steps outlined on pages 29 and 30 and may involve a complete review of the entire month's work before the error is located.

The automatic accumulation of totals in a machine system makes proof of accuracy easy and lends itself to a daily proof operation. In a setup using line-lock proof, proof of posting as well as of distribution is obtained on a line to line basis because the machine construction is such that if an error is made on any one line of posting—whether on the ledger posting or in the distribution—the machine will lock against operation, thus localizing the error to the last line of posting.

The simplicity and flexibility of machine methods are illustrated in posting cash receipts. No change in procedure or operations—merely a change in headings of the Journal—and cash receipts are posted just as simply as charges. Line-lock proof proves the accuracy of each line of posting, and cash received and distribution totals are automatically accumulated for comparison with pre-lists. If it is desired to provide the Cash Receipts Journal in some other manner, a continuous roll proof journal may be substituted and the posting operation would stop with the proof pick-up.



## Accounts Payable

The requirements of accounts payable, like accounts receivable, vary from industry to industry as well as from individual company to company. Whether the plan embodies the use of an accounts payable ledger, remittance advice or voucher check has no effect on the machine application; all can be handled with equal ease.

In the plan illustrated, the accounts payable entries are made to a remittance voucher and purchase journal simultaneously. Items are distributed direct to columns for inventory or expense accounts at the same time the vendors' accounts are posted. Balances due vendors are immediately available at the payment date and can be paid

without further verification. If desired, miscellaneous expense and inventory distribution amounts may be recorded on individual account sheets or unit tickets during the posting operation.

On the due dates the check and check register are written simultaneously. A carbon copy of the check is also made on the office copy of the remittance advice at the same time. Partial payments may be posted to the vendors' accounts during the check writing operation. Miscellaneous checks are quickly written and distributed direct to the account columns affected. Net control and distribution totals are accumulated automatically.

# Remittance Advice and Purchase Journal with Distribution Prepared Simultaneously

## PURCHASE JOURNAL

PREVIOUS BALANCE	DATE	REFERENCE	INVOICES	DEDUCTIONS	BALANCE	PROOF	NAME	ACCT. NO.	MISC.	DATE	A	B	C	D	E	F
254.10	JAN 95	165	.00		377.60	254.10	LEVY AND MALONE		.00	JAN 95	.00	.00	.00	.00	.00	.00
55.20	JAN 95	166	123.50		76.00	55.20	NELSON BROS			JAN 95	15.30	123.50				
172.75	JAN 95	167	5.50	22.25	150.50	172.75	PERRY-BROWN CORP	33		JAN 95	5.50	22.25				
	JAN 95	1276	18.50		18.50		RANDOLPH CO	34	1.10	JAN 95						
4.20	JAN 95	169	19.20	11.50	15.00	4.20	RENWICK AND WILLIAMS		.40	JAN 95	10.00		17.00			
8.25	JAN 95	1290	16.00		3.25 CR	8.25	SCHUSTER CORP			JAN 95						
145.50	JAN 95	170	8.50		170.00	145.50	SMITH SUPPLY CO	84	16.00	JAN 95		11.50				
	JAN 95	171	739.95		567.20		SMITH SUPPLY CO	92	8.50	JAN 95						
			172.75		567.20		TOTALS TODAY		26.00	JAN 95	30.80	89.75	9.20	17.00	.00	.00
			567.20		739.95		TOTALS PREVIOUS		11.00	JAN 95	351.20	128.50	18.50	26.75	13.90	17.35
							TOTALS TO DATE		37.00	JAN 95	382.00	218.25	27.70	43.75	13.90	17.35

Accounts Payable Ledger may be posted at this time if required

REMITTANCE ADVISE  
ANY COMPANY  
ANYWHERE

JAN 10  
DUE DATE

SMITH SUPPLY CO  
14TH AND GRAND  
ANYWHERE

BALANCE

150.00

145.50

170.00

DATE REFERENCE

JAN 65- 83 DEC 30

JAN 85- 84 JAN 2

JAN 95- 988 RET JAN 4

JAN 95- 170 JAN 4

JAN 95- 171 JAN 4

INVOICES

125.00

25.00

16.00

8.50

4.50-

MISCELLANEOUS  
DISTRIBUTION LEDGER

ACCOUNT NO. 84  
SHEET NO. 1

REFERENCE	ACCT. NO.	AMOUNT	DATE
KINNEMAN AND SON	84	127.50	JAN 75-
LORAINNE CORP	84	4.00-	JAN 75-
DORSEY AND BROWN	84	17.50	JAN 85-
SMITH SUPPLY CO	84	16.00	JAN 95-

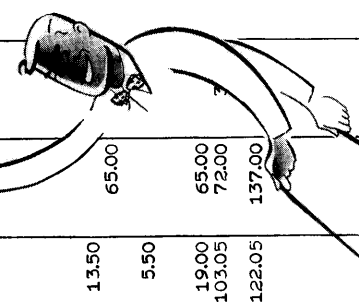
MISCELLANEOUS  
DISTRIBUTION LEDGER

ACCOUNT NO. 92  
SHEET NO. 1

REFERENCE	ACCT. NO.	AMOUNT	DATE
SMITH SUPPLY CO	92	8.50	JAN 95-

# CHECK REGISTER

PREVIOUS BALANCE	DATE	REFERENCE	ACCOUNTS PAYABLE		BALANCE	PROOF	NAME	CHECK NO.	DISCOUNT	DATE	BANK	A	B	C	MISC.	ACCT. NO.
			COMPLETE PAYMENT	PARTIAL PAYMENT												
			.00					.00	JAN 95		.00	.00	.00		.00	
137.25	JAN 95-	2216	219.50				BURDASAL COMPANY	345	4.39	JAN 95-	215.11					
55.75	JAN 95-	2217	54.00				CALLAHAN AND JONES	346	1.08	JAN 95-	52.92					
	JAN 95-	2218	32.75		80.00	137.25	CURWOOD BROS.	347		JAN 95-	32.75					
	JAN 95-	2021		57.25	42.50	55.75	DEWBERRY CORP.	348	1.15	JAN 95-	56.10					
	JAN 95-	2024		13.25			E. R. EDWARDS	349	.66	JAN 95-	12.59					
	JAN 95-	2026					SMITH SUPPLY CO.	350	3.40	JAN 95-	166.60					
			546.75		627.10		TOTALS TODAY		10.68	JAN 95-	536.07					
			627.10				TOTALS PREVIOUS		18.71	JAN 95-	608.39					
			1,173.85				TOTALS TO DATE		29.39	JAN 95-	1,144.46					
<p>In this position, partial payments are posted to Remittance Vouchers; or discount and payment may be posted to the Remittance Advice and to Accounts Payable Ledger when both are used.</p>																
							Miscellaneous checks not affecting accounts payable.									
							GEORGES TRUCKING CO.	351		JAN 95-	13.50					
							R. W. HONEST	352		JAN 95-	65.00					
							CASH	353		JAN 95-	25.00					
							KENTUCKY FREIGHT CO.	354		JAN 95-	5.50					
							TOTALS TODAY			JAN 95-	109.00					
							TOTALS PREVIOUS			JAN 95-	72.00					
							TOTALS TO DATE			JAN 95-	137.00					



**ANY COMPANY ANYWHERE**  
 No. 350  
 DATE JAN 95- AMOUNT \$ 166.60  
 PAY TO THE ORDER OF  
 SMITH SUPPLY CO.  
 350  
 3.40  
 NAME OF BANK  
 Lower section of Remittance Advice  
 AMOUNT  
 3.40 JAN 95- 166.60

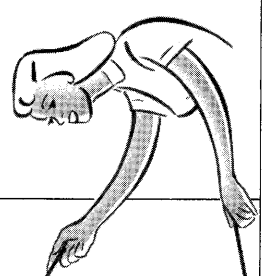
Remittance Advice, Check and Check Register with Distribution Prepared Simultaneously





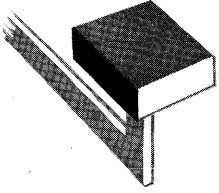
# GENERAL JOURNAL

PREVIOUS BALANCE	DATE	REFERENCE	DEBITS	CREDITS	BALANCE	PROOF	NAME	ACCT. NO.	DR GENERAL LEDGER	CR GENERAL LEDGER	DATE	EXPLANATION
11,560.50	JAN 95-	SJ	.00		11,993.50	11,560.50	CONTROL A R	5	.00	.00	JAN 95-	
45.60	JAN 95-	SJ A	433.00	8.20-	37.40	45.60	PP FREIGHT	32	433.00	8.20	JAN 95-	
15,350.00	JAN 95-	SJ B		251.05-			SALES	112		251.05	JAN 95-	
		SJ C		124.25-						124.25	JAN 95-	
		SJ D		10.00-						10.00	JAN 95-	
		SJ E		20.00-						20.00	JAN 95-	
6,245.18	JAN 95-	PJ		19.50-	15,774.80 CR	15,350.00	CONTROL A P	33	1.10	19.50	JAN 95-	
17.00	JAN 95-	PJ	1.10	172.75-	6,417.35 CR	6,245.18	OFFICE SUPP	34	.40	172.75	JAN 95-	
6.50	JAN 95-	PJ A	.40		18.10	17.00	POSTAGE	80	30.80		JAN 95-	
38,107.45	JAN 95-	PJ B	30.80		6.90	6.50	MOSE PURCHASES		89.75		JAN 95-	
		PJ C	9.20						9.20		JAN 95-	
		PJ D	17.00						17.00		JAN 95-	
		PJ K	16.00						16.00		JAN 95-	
		PJ M	8.50						8.50		JAN 95-	
14.50	JAN 95-	CJ		316.40-	38,270.20	38,107.45	EXP	90	16.00		JAN 95-	
11,993.50	JAN 95-	CJ			23.00	14.50	CONTROL A R	5	311.52	316.40	JAN 95-	
1,275.05	JAN 95-	CJ	311.52		11,677.10	11,993.50	BANK DEP	7	26.63		JAN 95-	
35.00	JAN 95-	CJ	26.63		1,586.57	1,275.05	DISC GIVEN	28			JAN 95-	
15,774.80	JAN 95-	CJ		15.75-	61.83	35.00	CTR AND COD SALES	112		15.75	JAN 95-	
11.50	JAN 95-	CJ		6.00-	15,774.80	15,774.80	MISC INCOME	114		6.00	JAN 95-	
10.00	JAN 95-	CJ	25.00		17.50 CR	11.50	PETTY CASH	35			JAN 95-	
1,586.57	JAN 95-	CR		25.00-	35.00	10.00	BANK	7	25.00	25.00	JAN 95-	
					1,561.57	1,586.57	TOTALS DR AND CR		968.90	968.90	JAN 95-	



NAME BANK ACCOUNT		ACCOUNT NO. 7		SHEET NO. 2	
DATE	REFERENCE	DEBITS	CREDITS	BALANCE	
	BALANCE FORWARDED			900.00	
JAN 85-	9 CJ	375.05		1,275.05	
JAN 95-	10 CJ	311.52		1,586.57	
JAN 95-	10 CR		25.00-	1,561.57	

Ledger and General Journal Prepared Simultaneously



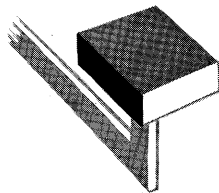
## *Payroll*

A modern payroll system requires the preparation of at least four distinct forms: namely, the Payroll Register, Employee Statement of Earnings, the Paycheck and an Employee Ledger. To prepare and prove each one of them separately is time consuming.

With payroll machines all of these forms are

completed and proved in one operation.

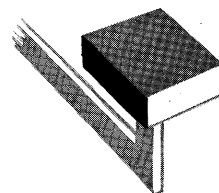
Totals to date of earnings and tax are available at all times for separation reports, quarterly Social Security Reports and yearly Income Tax Reports. Columnar totals are provided for instant proof of payroll writing by departments or other groupings.



## *General Ledger Records*

Posting to the general ledger is nothing but a simple debit and credit posting operation. Control and distribution totals from subsidiary jour-

nals and other general ledger items may be posted daily, periodically, or at the end of the month, as required.



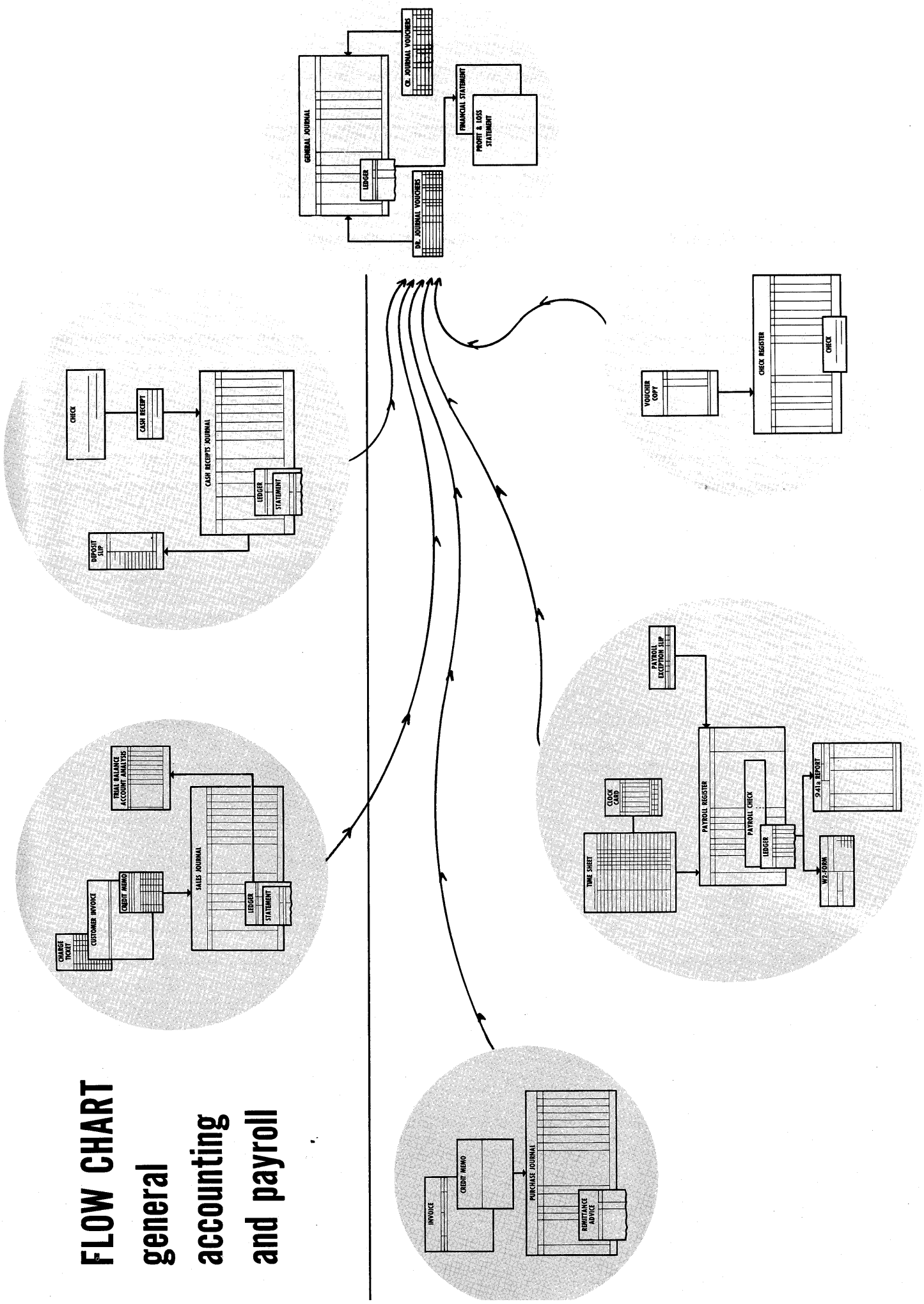
## *Other Applications*

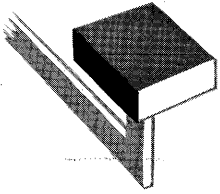
The preceding discussion and illustrations describe the usual applications found in any accounting department. This by no means, however, completes the range of applications that may be handled with this type of machine. In the final

analysis, preparation of accounting records may be reduced to adding, subtracting and totaling. Obviously, these operations can be performed better in less time and with less effort with machines than without machines.

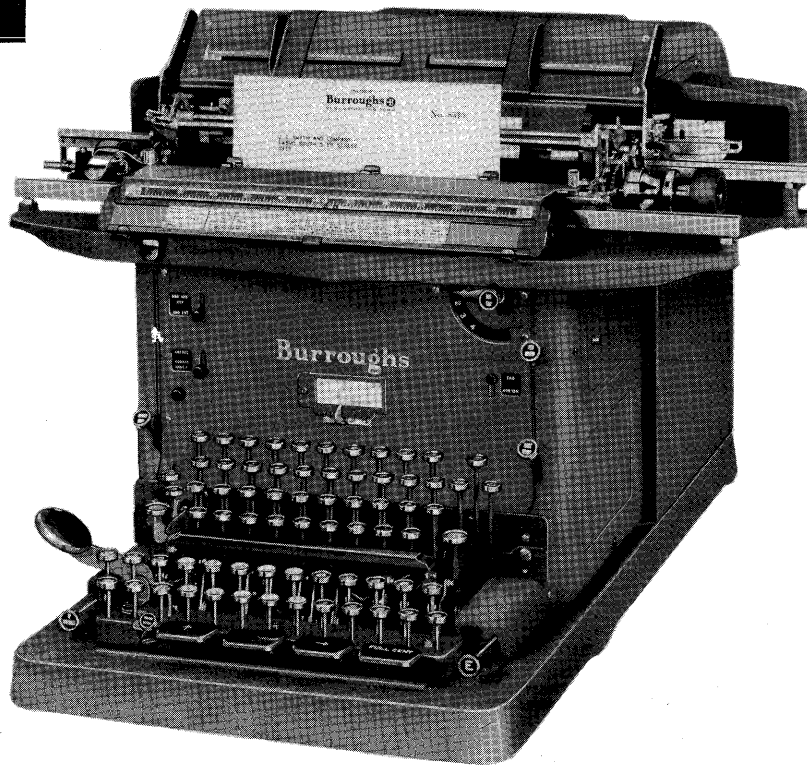
# FLOW CHART

## general accounting and payroll



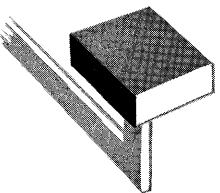


## *Multiplying Accounting Machine*



With this machine it is possible to compute and print the final results on usable forms. For this reason, it is usually used on applications where multiplication is involved. It is not, however,

limited to that type of application. It is frequently used on two or more applications where one or more may require multiplication.



## *Billing*

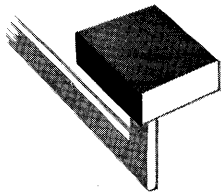
In the study of this machine we shall examine billing in commercial enterprises. First, however, let us review the manual procedure of a billing operation.

1. Extend values of items shipped.
2. Write values on order form.
3. Write invoice copying from order form.
4. Recalculate values and check against invoice for accuracy.

Some enterprises recalculate the values before the invoice is written and then visually check the accuracy of the invoice.

In machine methods the procedure is as follows:

1. Calculate and write the invoice in one operation.
2. Visually check for accuracy.



## Billing

DATE		OUR ORDER NO.	YOUR ORDER NO.	CONTRACT NO.
DEC 21 5-		47262	2456	B 8956
TERMS	NET	FREIGHT	HOW SHIPPED	SALESMAN
	NET	FREIGHT		JONES
QUANTITY	DESCRIPTION	PRICE	AMOUNT	NET
.25	ANYTHING	1.22	30.50	
.32	ANYTHING	.78	24.96	
2	ANYTHING	.37	<u>.74</u>	
			56.20	

The requirements of a billing operation are as varied as business. It may consist of a simple computation of quantity times price and a totaling of the extended items. On the other hand, it may contain fractions in the price or quantity; the quantity and price may be in different units; it may be subject to a single or chain discount; freight may need to be computed and added on or deducted from the invoice amount; etc. Similarly, the invoice forms may consist of unit sheets or continuous forms with interleaved carbon. The billing routine may be one of the following:

1. Bill from filled order.
2. Call billing.
3. Bill and order.

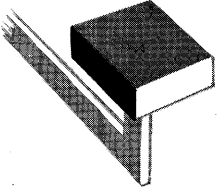
The procedure involved is evident from the names of the billing routines. Bill from filled order means copying the necessary data from the filled order form onto the invoice. In call billing the name of the customer, the items and other essential data are called to the billing clerk after the items have been prepared for packing. Bill

and order is a combination order and invoice form that is prepared at the same time showing all data up to the price and extensions. The order portion of the form is then sent to the shipping department for processing. After shipment it is returned to the billing department where the invoice is then completed by entering the quantity shipped, price and extensions.

Whatever the requirement, the operation can be handled efficiently with this type of machine.

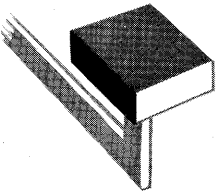
It is usually possible to do the complete invoice—calculating and typing—in less time than is normally required merely to copy it. The extension of the items on the invoice illustrated above is simple. The operator merely enters the quantity, types the description of the item, and then multiplies by the price. The price and the product are printed from a single key depression, thus all of the factors of the multiplication—the multiplicand, multiplier and the product—are printed and may be visually checked.

The illustrations show the wide range in billing that may be handled with this machine.



## Billing

ANY MANUFACTURER OR WHOLESALER				
Customers Order No. & Date	2465 12/19	Invoice Date	12/21	
Requisition No.		Vendor's Nos.	2365	
Contract No.				
<ul style="list-style-type: none"> <li>• A I CUSTOMER</li> <li>• ANYWHERE</li> <li>•</li> </ul>				
Shipped to & Destination	SAME	From	ANYPOINT	
Date Shipped	12/21	F. O. B.	ANYWHERE	
Car Initials & No.	NP 235767	Prepaid or Collect	PREPAID	
How Shipped and Route	GT-CB&Q-NP	Salesman		
Terms:	2% 10 DAYS			
Refer to Invoice Number _____ FOR CUSTOMER'S USE ONLY Register No. _____ Voucher No. _____ F. O. B. Checked _____ Terms Approved _____ Price Approved _____ Calculations Checked _____ Transportation _____ Freight Bill No. _____ Amount _____ Material Received _____ Date _____ Signature _____ Title _____ Satisfactory and Approved _____ Adjustments _____ Accounting Distribution _____ Audited _____ Final Approval _____				
QUANTITY	DESCRIPTION	PRICE	AMOUNT	NET
6	DZ ARTICLES	4 25	25 50	
10	DZ ARTICLES	12 50	125 00	
29	DZ ARTICLES	9 87	286 23	
10 3/4	DZ ARTICLES	3 12 1/2	33 59	
1/2	DZ ARTICLES	2 25	1 13	
			471 45	
	LESS 60-10-5%			161 24
72	ONLY	1 12 C NT		61
	LESS FRT 608 LBS AT	26 1/2 CWT		162 05
				1 61
				160 44



## Payroll

In most companies payroll preparation is broken down into two distinct operations: (1) payroll calculation; and (2) the writing of the payroll records. Where the employees work on an hourly rate, the two operations may be combined into one efficient payroll calculation and payroll writing plan through the use of this multiplying accounting machine. As shown in the illustration, all of the payroll records, the employee pay statement, the payroll check, the employee ledger and

the payroll journal are collated and prepared in one writing. The operator works from a clock card, which shows the total hours worked and the rate of pay, multiplies the two to arrive at the regular earnings, computes total earnings, enters the deductions and arrives at the net pay in one continuous operation. At the same time that the forms are produced the machine automatically accumulates figure totals for proof.

### CLOCK CARD

3 Dec 22nd 195-

**2541**  
C E Burt  
891-12-9631

DAY	MORNING		AFTERNOON		OVERTIME		HOURS WORKED
	IN	OUT	IN	OUT	IN	OUT	
MON	8:00	12:00	1:00	5:00			8
TUE	8:00	12:00	1:00	5:03			8
WED	8:00	12:00	1:00	5:00			8
THUR	7:56	12:00	1:00	5:04			8.00
FRI	8:00	12:00	1:00	5:04			8.00
SAT							
TOTAL							45
RATE							2 1/2
EARNINGS							112.50
DEDUCTIONS							
NET PAY							112.50

## PAYROLL JOURNAL

RATE	REGULAR HOURS	GROSS EARNINGS	NEW BALANCES EARNINGS W. H. TAX	OLD BALANCES EARNINGS W. H. TAX	DATE	PAID FOR HOURS	GROSS PAY	DEDUCTIONS				DATE	CHECK NUMBER	NAME	NET PAY
								F. I. C.	GROUP INS. MISC.	HOSP. CODE	MISC. CODE				
1.00	45.00	45.00	3100.62	196.20	DEC 22 5-	47.50	47.50	95	125	190	MOSE	DEC 22 5-	481	C E BURT	\$34.80
80	43.00	34.40	2745.60	2781.20											
90	46.00	41.40	2936.40	2980.50											
1.00	44.00	44.00	3316.83	3362.83											
1.25	50.00	62.50	3590.10	3658.85											
95	48.00	44.20	2684.70	2700.50	DEC 22 5-	47.50	47.50	95	125	190	MOSE	DEC 22 5-	481	C E BURT	\$34.80
1.40	42.00	58.80	2840.25	2904.45											
			163.20	166.60											

STATEMENT OF EMPLOYEE EARNINGS AND PAYROLL DEDUCTIONS

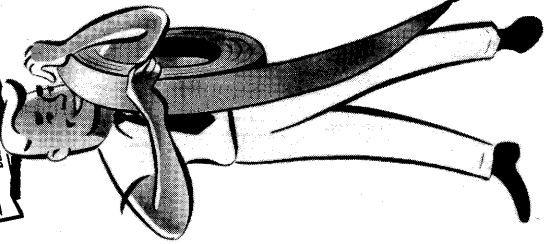
PERIOD ENDING	PAID HOURS	GROSS PAY	DEDUCTIONS				AMOUNT
			F. I. C.	GROUP INS. MISC.	HOSP. CODE	MISC. CODE	
DEC 22 5-	47.50	47.50	95	125	190	MOSE	\$34.80

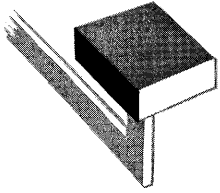
PAY TO THE ORDER OF  
**C E BURT**  
PAYROLL ACCOUNT  
**THE FIRST NATIONAL BANK**  
PAYABLE AT ANYWHERE

KEEP THIS STUB  
DETACH BEFORE CASHING CHECK

GROUP INSURANCE	HOSPITALIZATION	CLOCK NO., NAME AND SOC. SEC. NO.
1/2/5- 1.25	2/10/5- 2.15	<b>2541</b> C E Burt 891-12-9631
		3

OLD BALANCES EARNINGS W. H. TAX	NEW BALANCES EARNINGS W. H. TAX	DATE	PAID FOR HOURS	GROSS PAY	F. I. C.	GROUP INS. MISC.	HOSP. CODE	MISC. CODE	W. H. TAX
1,253.75	1,302.73	JUN 25-	49.00	49.00	98	1.25	2.45	5.25	MOSE
91.30	92.90	JUN 25-				1.90	C. C.		2.00
1,987.94	2,018.94	JUN 6 5-	51.00	51.00	102	1.25	2.50	7.50	STORE
154.20	136.10	JUN 6 5-							2.30
5,053.12	5,100.82	DEC 22 5-	47.50	47.50	95	1.25	2.00	1.90	MOSE
194.80	196.20	DEC 22 5-						5.00	RED. C.
									1.60



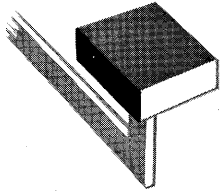


## *Time Ticket Extension and Wage Accrual*

In manufacturing industries the handling of time tickets frequently is a volume job. If costs are on an actual basis, these tickets must be extended for cost purposes. If the employees work on a piece rate basis, then these tickets must also be used for wage calculation and accrual. In order to release the time tickets to the cost department daily for maintenance of cost records, it becomes necessary to set up a wage accrual plan that will facilitate

preparation of the payroll records at the close of the pay period.

The illustration shown is a simple operation that provides for rapid calculation of time tickets and as a by-product obtain a wage accrual record that may be used for payroll writing, thus releasing time tickets daily for cost purposes and still providing the necessary information for payroll writing purposes at the end of the pay period.



## *Stores Ledger*

Material accounting involves the maintenance of records that facilitate the following:

1. Providing inventory quantities that tie in with physical stocks.
2. Accurately valuing each item of material withdrawn from stock.
3. Properly allocating charges currently for material used.

There are several methods of pricing inventories in use, the most popular of which is the

average price method. That is the one used in this illustration.

The volume activity in any material accounting plan is the handling of issues. If costs are on an actual basis, then the material requisitions will be the media for posting material issues to the proper cost records. The illustration shows how the extension of the material requisition and the posting of the stores ledger are combined into one simple, fast operation. Figure totals for proof of accuracy of both records are accumulated at the same time.



# DAILY DEPARTMENTAL LABOR REPORT

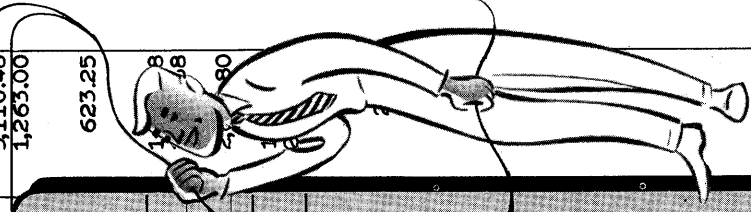
SEP 7 5-

DEPT ASSEMBLY #3

HOURS	D. W. RATE PIECES	DAY WORK P. W. RATE	PIECE WORK	JOB NO.	PREVIOUS BALANCE	DATE	HOURS	DAY WORK AMOUNT	PIECE WORK AMOUNT	EARNINGS THIS PERIOD	CLOCK NO.	F. I. C.
2	1.10	2.20		5472	35.20	SEP 7 5-	4	4.40		39.60	3-68	.40
2	1.10	2.20	5.51	5463	53.54	SEP 7 5-	4		5.51	59.05		
4	2.04	2.44		399		0 T	36	2.44		61.49	3-69	.61
2	.61	34	2.07	5472	40.23	SEP 7 5-	4	1.90	2.07	44.20		
2	.95	1.90		399		0 T	57	2.76		46.96	3-70	.47
57		2.76		5472								
<p>WAGE ACCRUAL RECORD</p> <p>CLOCK NUMBER AND NAME</p> <p>3-70 GEORGE STEBBINS 346-21-623</p>												
2	61		0.34	5471	34.98							
2		.95		399	55.88							
2				5452	42.55							
2				5459	46.00							
2				399	34.00							
57				5469	46.53							
57				5452	53.24							
57				5471	40.00							
57				399	43.89							
57				5472								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57				5469								
57				399								
57				5469								
57												

# DAILY MATERIAL ACTIVITY REPORT

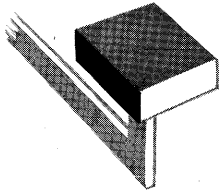
PROOF	MINUS PRICE	PLUS QUANTITY	VALUE	STOCK NO.	PREVIOUS QUANTITY BALANCE	DATE	REF. NO.	RECEIVED	ISSUED	QUANTITY ON HAND	AVERAGE PRICE	VALUE ON HAND	PROOF BALANCE																																																
117.00	.78	1.50	117.00	I-112	17.25	SEP 7 5-			1.50	15.75	.78	1,228.50	1,345.50																																																
130.64	.764	1.26	96.26	I-113	15.63	SEP 7 5-			1.26	13.92	.764	1,063.49	1,194.13																																																
365.76	.762	4.80	34.38	I-238	40.82	SEP 7 5-			4.80	36.02	.762	2,744.72	3,110.48																																																
			365.76	I-241	15.00								1,263.00																																																
				I-318	8.31								623.25																																																
<b>STORES LEDGER</b> PART NO. 1-238 LOCATION BIN 57 UNIT ONE SIZE 2" x 4" x 3" DRAWING NO. 289 DESCRIPTION LEVER ASSEMBLY MAXIMUM 4400 MINIMUM 1200																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>RECEIVED</th> <th>ISSUED</th> <th>QUANTITY ON HAND</th> <th>AVERAGE PRICE</th> <th>VALUE ON HAND</th> </tr> </thead> <tbody> <tr> <td>JUL 15</td> <td>20.00</td> <td>.24</td> <td>5.60</td> <td>.75</td> <td>420.00</td> </tr> <tr> <td>SEP 3</td> <td></td> <td>.50</td> <td>25.60</td> <td>.75</td> <td>1,920.00</td> </tr> <tr> <td>SEP 7 5-</td> <td>20.00</td> <td>1.12</td> <td>25.36</td> <td>.75</td> <td>1,902.00</td> </tr> <tr> <td>SEP 2 5-</td> <td></td> <td>2.48</td> <td>22.26</td> <td>.75</td> <td>1,669.50</td> </tr> <tr> <td>SEP 3 5-</td> <td>20.00</td> <td>1.44</td> <td>20.82</td> <td>.75</td> <td>1,561.50</td> </tr> <tr> <td>SEP 7 5-</td> <td></td> <td>4.80</td> <td>40.82</td> <td>.762</td> <td>3,110.48</td> </tr> <tr> <td></td> <td></td> <td></td> <td>36.02</td> <td>.762</td> <td>2,744.72</td> </tr> </tbody> </table>														DATE	RECEIVED	ISSUED	QUANTITY ON HAND	AVERAGE PRICE	VALUE ON HAND	JUL 15	20.00	.24	5.60	.75	420.00	SEP 3		.50	25.60	.75	1,920.00	SEP 7 5-	20.00	1.12	25.36	.75	1,902.00	SEP 2 5-		2.48	22.26	.75	1,669.50	SEP 3 5-	20.00	1.44	20.82	.75	1,561.50	SEP 7 5-		4.80	40.82	.762	3,110.48				36.02	.762	2,744.72
DATE	RECEIVED	ISSUED	QUANTITY ON HAND	AVERAGE PRICE	VALUE ON HAND																																																								
JUL 15	20.00	.24	5.60	.75	420.00																																																								
SEP 3		.50	25.60	.75	1,920.00																																																								
SEP 7 5-	20.00	1.12	25.36	.75	1,902.00																																																								
SEP 2 5-		2.48	22.26	.75	1,669.50																																																								
SEP 3 5-	20.00	1.44	20.82	.75	1,561.50																																																								
SEP 7 5-		4.80	40.82	.762	3,110.48																																																								
			36.02	.762	2,744.72																																																								
<b>STORES REQUISITION</b> DO NOT ENTER MORE THAN ONE ITEM ON A REQUISITION PLEASE FURNISH THE FOLLOWING MATERIALS TO DEPT. NO. 3 # 109 Right Lever Assembly Frank Locke AUTHORIZED SIGNATURE																																																													
PROOF	PRICE	QUANTITY	VALUE																																																										
365.76	.762	4.80	365.76																																																										
1,848.13	PROOF TOTALS		1,848.13																																																										



# DAILY COST PROGRESS REPORT

HOURS	LABOR	BURDEN RATE	BURDEN	MATERIAL	JOB NO.	PREVIOUS BALANCE	DATE	HOURS	LABOR	BURDEN	MATERIAL	REMARKS	COST TO DATE	PROOF
41	2.45													
35	2.92													
8	6.75													
156	12.12	22	26.66	18.92	5453	146.79	SEP 7 5-	.156	12.12	26.66	18.92		204.49	146.79
56	4.74													
62	5.21													
79	5.91													
193	15.86	22	34.89	5.65	5470	275.82	SEP 7 5-	.193	15.86	34.89	141.41		467.98	275.82
2	2.07													
8	7.65													
63	5.77													
163	15.49	22	34.08	365.76	5472	159.18	SEP 7 5-	.163	15.49	34.08	365.76		574.51	159.18
<b>COST SHEET</b> Form TA 3402 ARTICLE: MODEL 12 PUMP JOB NUMBER 5472 MATERIAL USED ORDER NO. 1167 DATE DUE DEC 2 #109 RIGHT LEVER ASSEMBLY ORDER DATE SEP 2 DATE FINISHED 72-9 PINS QUANTITY 240 302-4 CASTING														
2	61		1034											
<b>TIME TICKET</b> NAME Leo Stabina DEPT. Assembly #3 DATE 9/7 CLOCK NO. 3-70 PART NO. STOP 418 OPERATION Assemble # 91 JOB NO. ACCOUNT NO. 5472 301														
2	.61		34	2.07										
<b>PROOF TOTALS</b> 4,085.72 365.76 5.77 7.65														

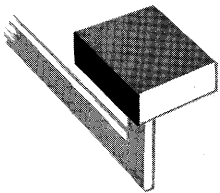




## *Cost Ledgers*

Whatever cost method may be used, the keeping of cost records usually resolves itself into summarizing of time tickets and material requisitions and computing the necessary burden to be absorbed in the cost of the product.

The illustration shows an application of job cost records, summarizing the time tickets, applying the burden rate on the direct labor and summarizing of material requisitions, and then totaling these onto a cost ledger and producing cost to date at the same time.



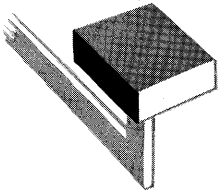
## *Tax Billing*

The requirement of a tax billing system varies from state to state and may vary from one county to another within a given state. The application of a tax billing machine must always meet all of the requirements of state and local laws.

The machine must be able to handle a variety of computations. These may consist of a single or multiple tax rate, assessments, instalment calculations, delinquencies, etc. Similarly it must be able to accommodate a wide range of forms; such as the tax roll, bill and receipt, tax ledger, where required; assessment roll and permanent valuation

records; delinquent notice, delinquent tax roll and delinquent tax ledger; apportionment journal, etc.

The illustration shows a tax billing plan that has wide popularity. It provides for preparing the tax roll, tax bill and receipt in one operation. The rate is entered into the machine at the beginning of the operation, and thereafter all the operator does is to insert the form and multiply by the valuation. The rest of the operation is automatic, and proof totals of valuation and tax are accumulated in the machine at the same time for proof purposes.



## *Other Applications*

The foregoing illustrates a few of the applications on which this type of machine is frequently used. These by no means exhaust its possibilities. It can be used profitably on any office or accounting record where the product of a calculation is written

on a form of record. It is fast, because it multiplies by direct mechanical principles and because it eliminates copying answers on temporary forms and then recopying on final forms with all of the attendant possibility for errors.

# TAX ROLL

# TAX ROLL

LINE	NAME AND ADDRESS	DESCRIPTION OF PROPERTY	VALUATION	TOTAL TAX		FIRST INSTALLMENT		SECOND INSTALLMENT		LINE
				AMOUNT	WHEN PAID	AMOUNT	WHEN PAID	AMOUNT	WHEN PAID	
1	John Stenans 112 Main St City	Highland Sub. #10 Lot 1	5000	185 00		92 50		92 50		1
2	C. V. Sallauer 3722 Chestnut St City	Highland Sub. #10 Lot 2 & S 23' of lot 3	6200	229 40		114 70		114 70		2
3	Lehigh Realty Co 631 W 27 St City	Highland Sub #10 N 27' of lot 3 and S 18' of lot 4	10500	388 50		194 25		194 25		3
4	J. M. Adams 7129 Fairfax Ave City	Highland Sub #10 N 32' of lot 4 and S 13' of lot 5	3200	118 40		59 20		59 20		4
5	Carl Kowaski 688 East 54 St City	Highland Sub #10 N 37' of lot 5 and S 5' of lot 6	4750	175 76		87 88		87 88		5
6	Stan L. Johnston 3347 Highland St City	Highland Sub. #10 Lot 1	7550	279 56		139 68		139 68		6
7	Frank S. Stanton 3349 Highland St City	Highland Sub. #10 Lot 7	1275	47 18		23 59		23 59		7
8			38475	1423 60				711 80		8
9										9
10										10
11										11

**TAX BILL**

**Burroughs** DEMONSTRATING FORM

Frank S. Stanton  
3349 Highland St  
City

Highland Sub. #10  
Lot 7

Highland Sub. #10  
Lot 1

**STUB**

**Burroughs** DEMONSTRATING FORM

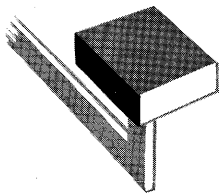
Frank S. Stanton  
3349 Highland St  
City

Highland Sub. #10  
Lot 7

Highland Sub. #10  
Lot 1

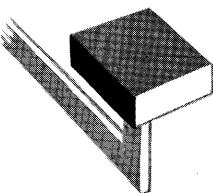
NUMBER	RATE	VALUATION	HALF TAX	TOTAL TAX	NUMBER	HALF TAX	TOTAL TAX
34712	370 00	1275	23 59	47 18	34712	23 59	47 18

THIS IS RECEIPT ONLY FOR AMOUNT CERTIFIED ABOVE.  
Printed in U. S. America



## *Numerical Accounting Machines*

As is evident from the name, these machines are not equipped with a typewriter and are used where numerical reference and a few character abbreviations are sufficient description of the accounting entry. Two different types of machines will be studied under this category. Machines within both types are designed to fit specific needs.



## *Adding-Bookkeeping Machines*

These machines were designed to fit the needs of the smaller business and such applications where activity is relatively small. It may be used on any type of posting and will produce a fast posting operation with machine printed figures and machine accuracy. There are machines in this category that are equipped both with and without register for accumulation of figure totals. With those models without an accumulating register, the proof operation is usually a separate operation following posting. However, since

volume is usually small, the proof of the operation can usually be established in a matter of minutes.

Typical applications are illustrated. The Accounts Receivable form is a fold-over ledger and statement whereby the ledger is a carbon copy of the statement. At the end of the month the forms are separated, the statement is mailed to the customer and the carbon copy is filed as the ledger record. If preferred, a continuous ledger may be collated with the statement.

STATEMENT

**BAILEY ARTISTS SUPPLIES**

\* William R. Lewis  
\* 1492 Columbus Ave.  
\* Burroughsville

OLD BALANCE	DATE	REFERENCE	CHARGES	CREDITS	BALANCE
			BALANCE FORWARDED		3 6.45
	JUN 3	1,255	1 3.44		
57.69	JUN 3	1,256	7.80		57.69 *
113.69	JUN 5	1,512	5 6.00		113.69 *
	JUN 7	7CSH		17.50 -	
94.99	JUN 7	DIS		1.20 -	94.99 *
	JUN 9	1,734	11 3.45		
	JUN 9	1,735	2 1.50		
	JUN 9	1,736	4 2.20		
272.14	JUN 1	OC SH		5 6.00 -	272.14 *
	JUN 1	OC SH		4 5.00 -	171.14 *
171.14	JUN 1	4C/M		177.15 -	6.01 CR
6.01 -	JUN 16	2,124	10 4.67		
	JUN 16	FR T	2.75		101.41 *
101.41	JUN 18	2,355	1 3.40		
	JUN 18	2,356	1 7.53		
	JUN 18	2,357	4.50		136.84 *

**IDEAL ASSOCIATES**

DATE JUN 27 195\_\_ No. 796

PAY TO THE ORDER OF Jones and McLaughlin Supply Company  
1423 Greenview, City

AMOUNT OF CHECK

Two hundred seventy one and 32/100 dollars \$ 271.32 \*

PAYABLE AT  
**THE FIRST NATIONAL BANK**  
ANYWHERE

*J. L. Jones*  
AUTHORIZED SIGNATURE

REFERENCE	DATE	INVOICE NO.	AMOUNT OF INVOICE	DEDUCTIONS	BALANCE DUE
455	JUN 17	21234	56.25		
462	JUN 19	21261	13.50		
463	JUN 19	21262	41.35		
	JUN 23	134		13.50 -	
488	JUN 25	21433	142.50		
490	JUN 25	21434	45.50		
	JUN 27	DIS		14.28 -	271.32 *



# TIME SHEET AND PAYROLL REGISTER

PERIOD ENDING

6/24/—

EMPLOYEE'S NAME	HOURS WORKED							TOTAL HOURS	RATE	REGULAR EARNINGS	OVER-TIME	GROSS PAY	DEDUCTIONS			CHECK NUMBER	NET EARNINGS	
	M	T	W	T	F	S	S						F.I.C.	FED. TAX	INS.			MISC.
Arthur Jones	8	8	8	8	8			40	1.60	64.00		64.00	1.28	4.00	1.80	1.50	610	55.42
Sam Davis	8	8	8	8	8			40	1.50	60.00		60.00	1.20	3.40	1.60		611	53.80
Paul Thorson	10	10	9	8	8			45	1.95	87.75	4.88	92.63	1.85	8.10	3.75		612	78.93
Sidney Lee	8	8	8	8	8			40	1.65	66.00		66.00	1.32	4.30	.50		613	59.88
Melvin Bruer	8	8	8	8	8			39.8	1.80	71.64		71.64	1.43	4.90	2.20	5.00	614	58.11
John Carlson	8	8	8	8	9			41	1.70	69.70		69.70	55	1.41	4.90	2.20	615	62.04

TOTALS												245.8	419.09	5.73	424.82	8.49	29.60	12.05	6.50	368.18*
--------	--	--	--	--	--	--	--	--	--	--	--	-------	--------	------	--------	------	-------	-------	------	---------

NAME John Carlson  
 ADDRESS 711 Rubicon St., City  
 DATE EMPLOYED July 1, 19—  
 CLOCK No. 329  
 S. S. No. 233-01-6521  
 DEPARTMENT 7  
 TAX CODE  
 PHONE BI-4904  
 RATE 1.70

REFERENCE OR CHECK NUMBER	DAYS OR HOURS	DATE	EARNINGS	F.I.C.	FED. TAX	INSURANCE	MISC.
444	4 1.50	MAY 27	70.55	1.41-	4.90-	2.20-	
470	4 0	JUN 3	68.00	1.36-	4.60-	2.20-	
513	4 3.50	JUN 10	73.95	1.48-	5.50-	2.20-	.50-
580	4 0	JUN 17	68.00	1.36-	4.60-	2.20-	
615	4 1	JUN 24	70.55	1.41-	4.90-	2.20-	5.00-

**Burroughs**  
 STATEMENT OF EMPLOYEE EARNINGS AND PAYROLL DEDUCTIONS

DATE JUN 24 195— No. 615

EMPLOYEE'S NAME John Carlson DETACH BEFORE CASHING CHECK

DAYS OR HOURS	DATE	TOTAL EARNINGS	F. I. C.	FED. TAX	INSURANCE	MISC.	NET EARNINGS
41	JUN 24	70.55	1.41-	4.90-	2.20-		62.04*

PARIN PRODUCTS, INC.

DATE JUN 24 195—

PAY TO THE ORDER OF John Carlson

No. 615

—Sixty-two and 4/100 dollars—

AMOUNT \$ 62.04\*

PAYABLE AT THE FIRST NATIONAL BANK ANYWHERE

PAYROLL ACCOUNT  
*C. J. Parin*  
 AUTHORIZED SIGNATURE





### GENERAL LEDGER

ACCOUNT NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

OLD BALANCE	DATE	REFERENCE	DEBITS	CREDITS	BALANCE
545.70					545.70
1331.30	JUN 3				1331.30
2321.75	JUN 4				2321.75
3356.07	JUN 5				3356.07
4458.77	JUN 7				4458.77
5803.77	JUN 10				5803.77
6654.12	JUN 11				6654.12
7609.40	JUN 12				7609.40
8619.40	JUN 13				8619.40
10060.50	JUN 14				10060.50
11081.050	JUN 15				11081.050
			785.60		
			104.45		
			32.00		
			70.00		
				250.00	
					1331.30
					2321.75
					3356.07
					4458.77
					5803.77
					6654.12
					7609.40
					8619.40
					10060.50
					11081.050

### COST LEDGER

ACCOUNT NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

OLD BALANCE	DATE	HOURS	LABOR	MATERIAL	BALANCE
			8.25		25.75
25.75	JUN 21	5.50	17.50		33.18
33.18	JUN 21	14	7.40		42.68
	JUN 22	4	6.75		76.18
	JUN 23	4	3.50		73.18
	JUN 24	3			
	JUN 25	15			
	JUN 26				

### MATERIAL LEDGER

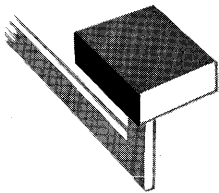
ACCOUNT NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

OLD BALANCE	DATE	REFERENCE	RECEIVED	ISSUED
.31	JUN 18			
1.46	JUN 19			
1.76	JUN 20			
1.60	JUN 23	1 123 1		
	JUN 23	1 131 0		
	JUN 23	475 4		
	JUN 23	478 2	1.15	
	JUN 25	478 3	.30	
	JUN 25	478 4		
	JUN 25	491 2		

### DISTRIBUTION LEDGER

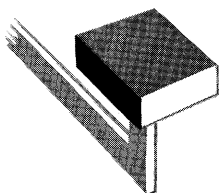
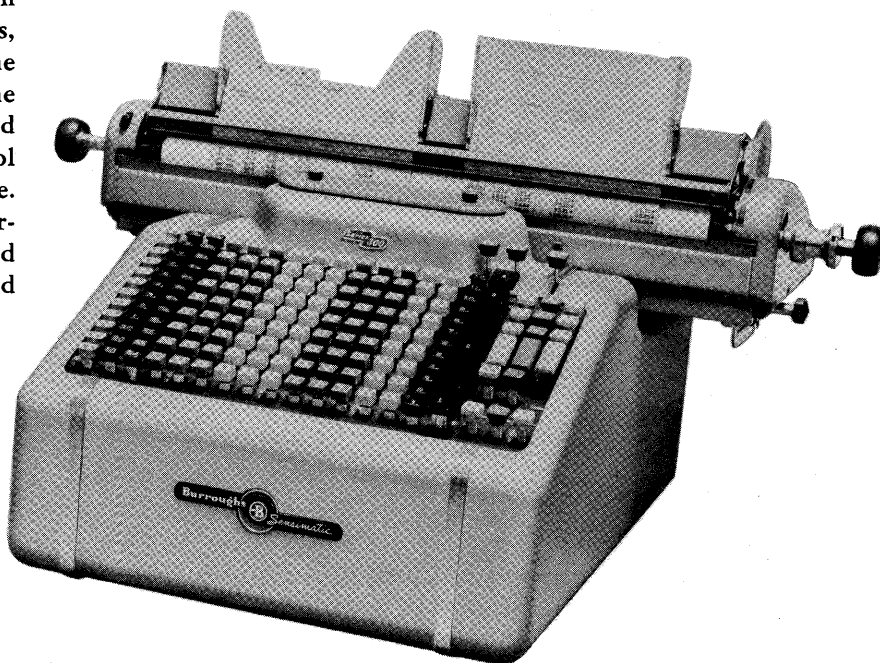
ACCOUNT NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

OLD BALANCE	DATE	REFERENCE	DEBITS	CREDITS	BALANCE
					167.50
167.50	JUN 14	134	15.40		260.31
	JUN 14	134	12.41		
	JUN 14	134	65.00		
	JUN 14	134	2.75		
	JUN 16	134	18.62		407.08
260.31	JUN 16	134	125.40	12.41	394.67
	JUN 16	134			451.42
407.08	JUN 20	134	56.75		538.32
394.67	JUN 20	134	86.90		600.72
451.42	JUN 24	134	62.40		
538.32	JUN 26	134			



## *Sensimatic\* Accounting Machines*

Sensimatic accounting machines differ from the smaller adding-bookkeeping machines both in the volume of work handled and the flexibility of performance. Sensimatics provide from 2 to 19 separate distribution totals, depending upon the model. As the number of totals increases, so does the variety of work that can be performed with the machine. Removable control units make the Sensimatic flexible. Several control units can be interchanged on a single Sensimatic, and each control unit can be custom-fitted to a specific task.



## *Accounts Receivable*

In manual accounting, it is customary to record the charge invoices on a customer's ledger at the time of posting. Balances may, or may not, be figured and extended at the time of posting. The extensions frequently are not proved. At the month-end, balances are extended on each account and/or a Trial Balance is taken. Then, all current entries are recorded on a Customer's Statement. The extending, proving, balancing

and Statement-writing operation create a peak-load of work.

With the accounting machine illustrated, the Statement is obtained, in original print. Dates are written automatically, and new balances are computed and printed automatically. Each line of posting is proved and the total postings are balanced against a pre-list of charge invoices.

\*Reg. T. M.

(ACCOUNTS RECEIVABLE JOURNAL)

2365-	.00**		2365
6795-	.00**	122.40**	6795
8821-	48.76**	88.30**	88.21
5376-	74.23**	121.25**	5376
2153-	121.25**	341.06**	2153
5726-	45.34**	250.16**	5726
	50.60**	256.35**	
	16.84**		
	.00**		
	357.12**		

Printed in U. S. America

LEDGER

NAME Consolidated, Inc.  
 ADDRESS 1122 8th Ave.  
 CITY City

RATING  
 CREDIT LIMIT

SALES TO DATE	DATE	REFERENCE	CHARGES	CREDITS	BALANCE
125.00*		BALANCE FORWARDED			53.65*
151.83*	AUG 58-	229,860	26.83	53.65	50.48*
199.09*	AUG 105-	234,655	47.26		26.83*
256.35*	SEP 35-	236,857	23.29		74.09*
275.19*	SEP 125-	236,858	33.67		
	SEP 275-	239,421	16.84	74.09	131.35*
					57.26*
					74.10*

STATEMENT

Consolidated, Inc.  
 1122 8th Ave.  
 City

PLEASE RETURN THIS STUB WITH YOUR CHECK

DATE	REFERENCE	CHARGES	CREDITS	BALANCE
	BALANCE FORWARDED			74.09*
SEP 35-	236,857	23.29		
SEP 35-	236,858	33.67		131.35*
SEP 125-			74.09	57.26*
SEP 275-	239,421	16.84		74.10*

**COMBINED DISTRIBUTION JOURNAL AND INVOICE REGISTER**

REMARKS	PROOF		DISTRIBUTION JOURNAL				INVOICE REGISTER						
	PREVIOUS BALANCE	AMOUNT OF INVOICE	OLD BALANCE	DATE	REFERENCE	AMOUNT	DEDUCTIONS	BALANCE	DATE	INVOICE NO.	AMOUNT	DEDUCTIONS	BALANCE
	29.75*-	35.14**	40.05	SEP 11 <sup>5</sup> -	1.198	30.54+		70.59**	SEP 11 <sup>5</sup> -	4,502	35.14*		64.89**
			144.54	SEP 11 <sup>5</sup> -	1.198	4.60+		149.14**					
			29.75										
	19.85*-	20.05**	79.55	SEP 11 <sup>5</sup> -	1.201	17.07+		96.62**	SEP 11 <sup>5</sup> -	3,945	20.05*		39.90**
			22.66	SEP 11 <sup>5</sup> -	1.201	2.98+		25.64**					
			19.85										
	35.95*-	71.60**	39.95	SEP 11 <sup>5</sup> -	1.234	49.50+		89.45**	SEP 11 <sup>5</sup> -	5,737	71.60*		107.55**
			48.05	SEP 11 <sup>5</sup> -	1.234	12.35+		60.40**					
			95.00	SEP 11 <sup>5</sup> -	1.234	9.75+		104.75**					
			35.95										

**DISTRIBUTION LEDGER**

ACCOUNT NAME Inventory  
ACCOUNT NO. 101  
SHEET NO.

OLD BALANCE	DATE	REFERENCE	AMOUNT	DEDUCTIONS	BALANCE
		BALANCE FORWARDED			
27.50	SEP 3 <sup>5</sup> -	1.032	27.50+		27.50**
39.95	SEP 7 <sup>5</sup> -	1.112	12.45+		39.95**
	SEP 11 <sup>5</sup> -	1.234	49.50+		89.45**

**DISTRIBUTION LEDGER**

ACCOUNT NAME Selling Expense  
ACCOUNT NO. 207  
SHEET NO.

OLD BALANCE	DATE	REFERENCE	AMOUNT	DEDUCTIONS	BALANCE
		BALANCE FORWARDED			
12.95	SEP 4 <sup>5</sup> -	1.045	12.95+		12.95**
46.05	SEP 9 <sup>5</sup> -	1.165	35.10+		46.05**
	SEP 11 <sup>5</sup> -	1.234	12.35+		60.40**

**DISTRIBUTION LEDGER**

ACCOUNT NAME Advertising Expense  
ACCOUNT NO. 223  
SHEET NO.

OLD BALANCE	DATE	REFERENCE	AMOUNT	DEDUCTIONS	BALANCE
		BALANCE FORWARDED			
22.50	SEP 3 <sup>5</sup> -	1.078	22.50+		22.50**
95.00	SEP 4 <sup>5</sup> -	1.234	72.50+		95.00**
	SEP 11 <sup>5</sup> -	9.75+	9.75+		104.75**

TRIPPLICATE COPY: FILE NUMERICALLY BY VOUCHER NO., ATTACH PAID INVOICES  
DUPLICATE COPY: FILE ALPHABETICALLY BY VENDOR.

PAY TO THE ORDER OF  
The Equipment Manufacturing Co.  
1386 Main St.  
CITY

DATE \_\_\_\_\_ CHECK NO. \_\_\_\_\_ DISCOUNT \_\_\_\_\_ AMOUNT \_\_\_\_\_

PAYABLE AT  
THE FIRST NATIONAL BANK  
ANYWHERE

DETACH BEFORE DEPOSITING CHECK VOUCHER NO. 1234

**REMITTANCE VOUCHER**

DATE	REFERENCE	INVOICES	DEDUCTIONS	BALANCE
SEP 3 <sup>5</sup> -	5,255	3,945*		35.95**
SEP 11 <sup>5</sup> -	5,737	71.60*		107.55**

INVOICE THE EQUIPMENT MANUFACTURING CO. 1386 Main St. CITY, MINN.

INVOICE No. 5787

Sold to: THE PROGRESSIVE CO. 2174 FINLON CITY, MINN.

Date: SEPT 11

Terms: NET 30 DAYS

QUANTITY	UNIT PRICE	AMOUNT
49.50		49.50
12.35		12.35
9.75		9.75
		71.60
		71.60

INVENTORY ITEM 49.50  
SALES AND ITEM 12.35  
ADVERTISING ITEM 9.75

ACCOUNT PAYABLE 71.60

# Accounts Payable

## Vouchering and Distribution

The application at left illustrates posting a vendor's invoice to the vendor's voucher and immediately distributing the purchase or expense amount to unit distribution ledgers. Each ledger corresponds to a *column* in a purchase journal. At the end of the accounting period, the balance on each ledger is posted to the appropriate general ledger account and the distribution ledger is ruled off. This corresponds to posting *page totals* from journal columns to the general ledger.

The advantage in using unit ledgers is that

unlimited distribution is possible. Journals are limited as to the number of columns available for columnar distribution.

**Reference**—The vouchers used in a numerical accounting system are pre-numbered. Note that the "Reference Number," used when posting debits to the unit distribution ledger, is the *Voucher Number*.

If paid invoices are filed alphabetically by vendor, a copy of the voucher is filed in a post binder in voucher number order. This is a voucher register.

## Check Writing

In the application shown at the left, the vendor's name was typed on the voucher in the check portion when the first invoice was received. Therefore, the check writing shown below, con-

sists only of listing the voucher balance to be paid, listing the check number and then subtracting the *discount* amount. The machine immediately calculates and prints the check amount.

CASH DISBURSEMENTS JOURNAL				
225.00	SEP 30 <sup>5</sup> -	12,331	4.50-	220.50**
137.75	SEP 30 <sup>5</sup> -	12,332	2.76-	134.99**
25.00	SEP 30 <sup>5</sup> -	12,333		25.00**
79.32	SEP 30 <sup>5</sup> -	12,334	.79-	78.53**
107.55	SEP 30 <sup>5</sup> -	12,335	2.15-	105.40**
		SEP 30 <sup>5</sup> -	10.20CR #	

PAY TO THE ORDER OF				
The Equipment Manufacturing Co.				
1386 Main St.				
City				
DATE	CHECK NO.	DISCOUNT	AMOUNT	
SEP 30 <sup>5</sup> -	12,335	2.15-	105.40 # *	
PAYABLE AT				
THE FIRST NATIONAL BANK				
ANYWHERE				
AUTHORIZED SIGNATURE _____				
PRINTED IN U. S. AMERICA				
DETACH BEFORE DEPOSITING CHECK				
				VOUCHER NO. 1234
REMITTANCE VOUCHER				
DATE	REFERENCE	INVOICES	DEDUCTIONS	BALANCE
SEP 3 <sup>5</sup> -	5,255	35.95 *		35.95 # *
SEP 11 <sup>5</sup> -	5,737	71.60 *		107.55 # *
PRINTED IN U. S. AMERICA				
PRINTED IN U. S. AMERICA				

# Inventory and Production Control

Inventory Control requires a system of record-keeping on products, parts or material which will inform management as to: Quantities in stock and on order which are available for sale or use; When to buy or manufacture additional quantities; Usage, so that the desired level of a particular item may be intelligently determined.

There are four phases of Inventory Control: 1) Finished Goods 2) Work in Process 3) Raw Material 4) Non-Productive Stores. Production Control is that part of the Inventory Control system which keeps track of Work in Process as it goes through the manufacturing steps.

## Inventory Control by Machine Accounting

Practically any type of business that uses or sells a quantity of different products or items should keep some type of inventory records. A wholesaler or retailer would have need for inventory records on Finished Goods; a manufacturer would have need for all phases outlined above; a govern-

mental body or utility might concern itself only with stores accounting.

The degree of need of machine accounting, of course, will depend on the volume of items and entries to the records. A determination of the need can only be made by analyzing the particular problem.

## Advantages of Inventory Control Records

They indicate where inventories can be trimmed to conform to actual requirements, thus eliminating losses due to idle capital, wasted space, obsolescence. They provide dependable scheduling information, giving warning of stock depletions before production or shipment is interrupted. They furnish valuable purchasing statistics, indicating when to buy and in what quantities. They serve as a check on unauthorized removal of goods; and, they provide a dependable basis for insurance protection, reveal slow-moving items and simplify inventory-taking.

## Advantages of the Sensimatic Accounting Machine for Maintaining Production Control Ledgers

ARTICLE			DESCRIPTION				ITEM NO.			
CODE	SUPPLIER		REMARKS				LOCATION			
1										
2										
3										
4							MAX.	MIN.		
5										
DATE	VENDOR	REFERENCE	UNIT COST	QUANTITIES		TOTAL USED	BALANCES			
				ORDERED	RECEIVED	RESERVED	USED	ON ORDER	AVAILABLE	ON HAND
BALANCES FORWARDED										
1	2		3		4		5	6	7	8

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. AUTOMATIC DATES</li> <li>2. COMPLETE TRANSACTION REFERENCE</li> <li>3. UNIT COST ON EACH RECEIPT</li> <li>4. DETAILED UNIT ENTRIES ON ALL TRANSACTIONS</li> <li>5. TOTAL UNITS USED OR SOLD FOR ANY GIVEN PERIOD</li> </ol> | <ol style="list-style-type: none"> <li>6. PROVIDES RUNNING BALANCE OF UNITS ORDERED FOR FUTURE DELIVERY</li> <li>7. PROVIDES BALANCE OF UNITS IN STOCK WHICH HAVE NOT BEEN "EARMARKED" FOR DELIVERY OR USE</li> <li>8. SHOWS ACTUAL INVENTORY ON HAND</li> </ol> |
|---|--|

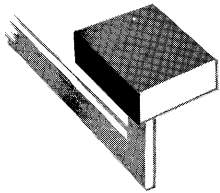
	5	10	15	20	25	30			PS 168	
ORDER	CURRENT SCHEDULE						FUTURE		PART NUMBER	
CLASS	CODE	MATERIAL CODE							EST. USE	SEASONAL
KIND OF MATERIAL								CAPSCREW	REORDER	EXPED. MIN.
KIND OF MATERIAL								ARTICLE AND DESCRIPTION		

DATE	REFERENCE	DATE WANTED	Q U A N T I T I E S						TOTAL ISSUED TO DATE	B A L A N C E S		
			ORDERED	RECEIVED	BAL. EA. P. O.	✓	ALLOCATED	ISSUED		ON ORDER	AVAILABLE	ON HAND
OCT 15-					.00				12.00		4.50	4.50
OCT 165-	376							5.00			.50	
OCT 175-	17,450	11-15	2.50		2.50					2.50		
NOV 175-	17,450			1.75	.75					.75	1.25	6.25
NOV 185-	2,366							2.50	14.50			3.75

1. As of October 1, there were 450 CAPSCREWS on hand and 450 available for manufacturing requirements, with none on order.
2. On October 16, Production Order #376 was written for 250 units of Assembly "A." The Bill of Material list indicates that 2 *capscrews* (part #PS 168) are required for each completed unit of Assembly "A." Therefore, 500 capscrews are required to manufacture 250 completed units. Since the "Available Balance" was only 450, the Sensimatic automatically prints the credit balance of 50 in red. The quantity available is 50 short of requirements, so the operator tabs or offsets the Production Control ledger sheet for that part.
3. Working from tabbed parts cards, the clerk in the control section determines the quantity to be ordered based on such factors as past usage, lead time, delivery schedules, etc. Accordingly, 250 parts have been ordered on Purchase Order #17,450 and date wanted is "11-15."
4. On November 17, some of the parts were received, placed in stock and posted in the "Received" column. The quantity received reduces the "Balance each Purchase Order," decreases the "Balance on Order," increases the "Available" and increases the quantity "On Hand."
5. On November 18, the parts were issued to manufacturing and the quantity issued is posted to the Production and Inventory Control ledger. When parts are issued, the "Total Issued to Date" balance is increased and the quantity "On Hand" is decreased.



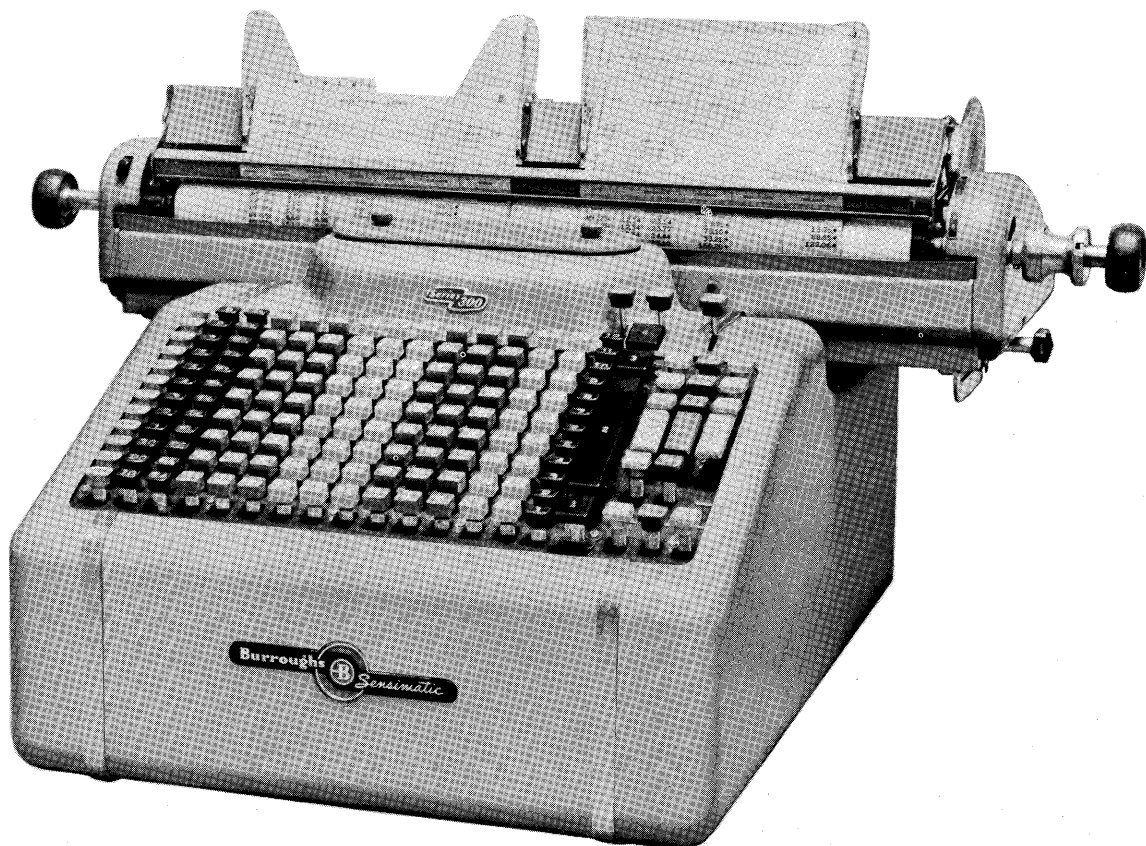


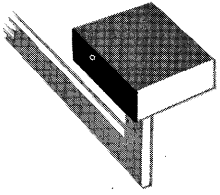


# General Ledger

The biggest figures in any business—the balances on the general ledger accounts—are easily handled with Sensimatic's ample capacity. Sensimatic is ideal too, for miscellaneous ledger posting. *Material, cost and other ledgers are well within the extensive scope of the Sensimatic Accounting Machine.*

GENERAL LEDGER						
ACCT. NAME		Sales		ACCT. No. 7		
				SHEET No. 2		
DATE	REFERENCE	DEBITS	✓	CREDITS	✓	BALANCE
BALANCE FORWARDED						7,569.43CR
FEB 235-	11			428.64		7,998.07CR
FEB 245-	12			1,272.88		9,270.95CR
FEB 255-	13			356.21		9,627.16CR
FEB 265-	14			728.56		10,355.72CR
FEB 275-	15			357.02		10,712.74CR





## Payroll with a Multiple-Total Machine

The machine procedure covered below brings out very clearly the simplicity of the operation by machine methods because of collation and simultaneous preparation of forms, the extension of necessary total-to-date figures and automatic accumulation of proof totals.

### Machine Procedure

#### Weekly—

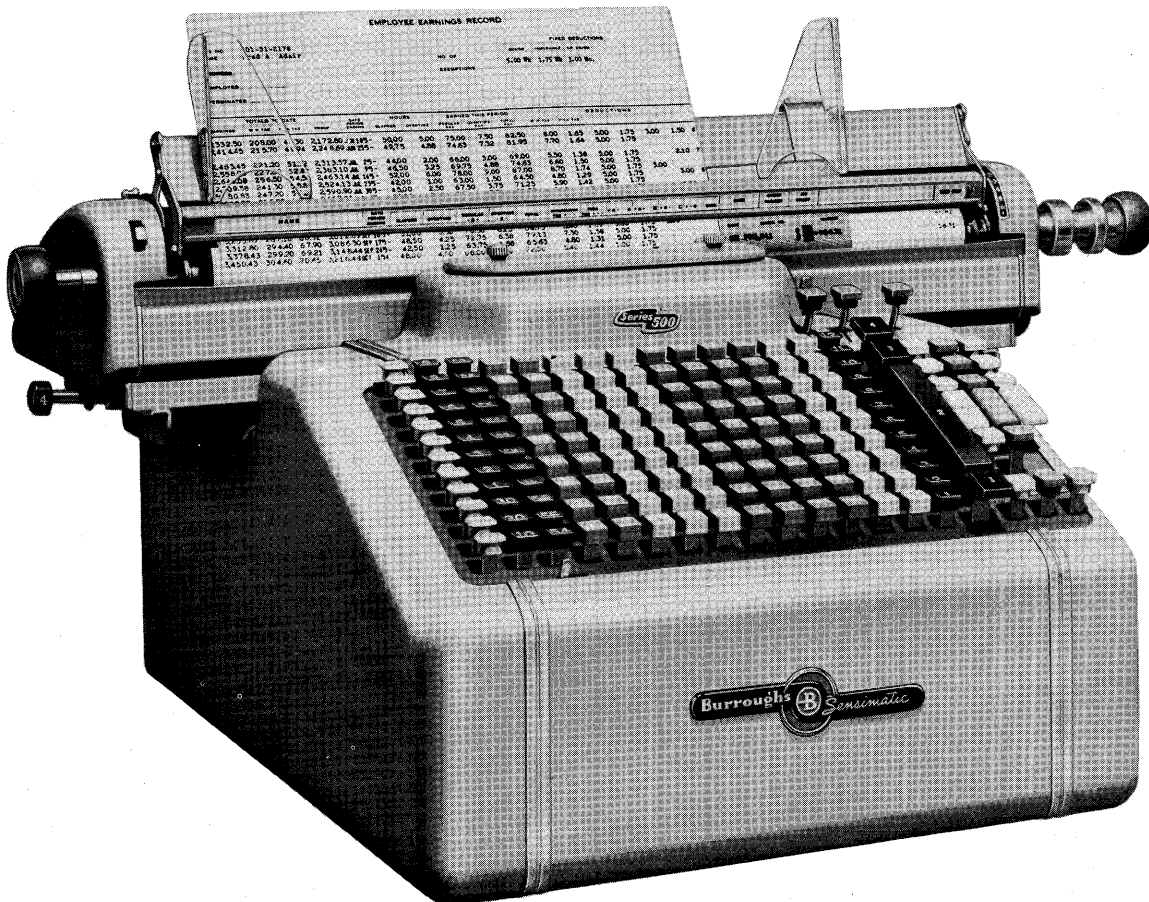
All four related payroll records—payroll journal, pay statement, pay check and employee's earnings record are posted simultaneously, with one handling of the figures. The net pay for each pay check is computed, and totals-to-date of earnings and taxes are printed on the employee's earnings record.

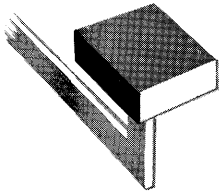
#### Quarterly—

Prepare Form 941a. The operator enters only total earnings to-date and earnings to-date at the end of the previous quarter. The machine automatically computes all other required data and accumulates proof totals.

#### Annually—

Prepare Form W-2, copying earnings and tax to date for the year from the employee's ledger, proof totals accumulating automatically.





# Unit Plan Payroll

An accounting machine combines the writing of all related payroll records into one operation. In the illustration shown, in one handling of the forms and amounts, the check amount is computed and written, the Employee Earnings Record is posted and totals-to-date of taxes and

earnings are obtained for later report writing. Also, a statement of earnings and deductions is provided for the employee. A complete Payroll Journal is obtained as a carbon record of the actual amounts listed on the Earnings Records and the checks.

### PAYROLL JOURNAL

P.J. No. \_\_\_\_\_  
 ROLL No. \_\_\_\_\_  
 INDEX No. \_\_\_\_\_

NAME	DATE PERIOD	HOURS WORKED		EARNINGS			DEDUCTIONS							DATE	CHECK NUMBER	AMOUNT	NET PAY	
		ELAPSED	OVERTIME	REGULAR	OVERTIME	TOTAL	WITHHOLDING TAX	FICA TAX	F-D	A	B	C	D					MISC.
L01-31-2176 Fred A. Adair	JUN 30 <sup>5</sup>	46.00	3.00	73.60	4.80	78.40	7.30	1.57	1.50	2.00								66.03
301-20-1816 John C. Abbott	JUN 30 <sup>5</sup>	42.50	1.25	59.50	1.75	61.25	4.10	1.23	2.50	3.00	1.20	6						49.22
121-06-3321 A. N. Boyseell	JUN 30 <sup>5</sup>	48.00	4.00	82.56	6.88	89.44	6.80	1.79	1.00	2.30								77.55
381-05-7053 Emil R. Hansen	JUN 30 <sup>5</sup>	46.75	3.38	46.75	3.38	50.13	4.50	1.00	2.30	4.00	1.00							37.33

#### EMPLOYEE EARNINGS RECORD

S. S. NO. 401-31-2176  
 NAME Fred A. Adair  
 ADDRESS \_\_\_\_\_  
 EMPLOYED \_\_\_\_\_  
 TERMINATED \_\_\_\_\_

NO. OF EXEMPTIONS \_\_\_\_\_

BONDS		INSURANCE		CR. UNION	

TOTALS TO DATE				EARNED THIS PERIOD				DEDUCTIONS								
EARNINGS	W. H. TAX	FICA TAX	PROOF	ELAPSED	OVERTIME	REGULAR	OVERTIME	TOTAL	W. H. TAX	FICA TAX	F-D	A	B	C	D	MISC.
2,481.20	200.60	49.53	2,330.13	46.00	4.00	76.80	6.40	83.20	8.20	1.66	1.50	3.00	2.50	1.60	5	
2,556.00	205.70	51.03	2,401.33	44.50	2.25	71.20	3.60	74.80	5.10	1.50	2.00			3.00	6	
2,634.40	213.00	52.60	2,474.00	46.00	3.00	73.60	4.80	78.40	7.30	1.57	3.00			2.00	7	
2,712.80	220.30	54.17	2,546.67	46.00	3.00	73.60	4.80	78.40	7.30	1.57	1.50	2.00			7	

DATE	CHECK NO.	AMOUNT
JUN 30 <sup>5</sup>	1,234	\$ 666.03

**NOT VALID**

AUTHORIZED SIGNATURE \_\_\_\_\_

DEDUCTIONS				TOTAL NET PAY
#	MISC. CODE #	MISC. CODE #	MISC. CODE #	
00 5	1.20 6	.00 8	.00 2	230.13
	.00 7	.00 1	.00 3	

Printed in U. S. America

Form 941-AM 941A AND STATE CONTINUATION SHEET OF EMPLOYERS QUARTERLY WAGE REPORT  
is to be filed. Attach on the State copy, take out pages of employees if they are required to be shown, the State  
NAME OF STATE WHERE EMPLOYEE WORKS MUST BE SHOWN IN BOX 20.

# Governmental Wage Reports

The Sensimatic computes state taxable earnings and federal taxable earnings automatically, producing the State Unemployment Compensation report as a by-product of preparing the 941a report. In this illustration, the machine operator lists only the "Present Earnings to Date" and the "Previous Earnings to Date". The five taxable and non-taxable amounts at left are computed automatically by the Sensimatic.

24710

## CONTINUATION SHEET OF SCHEDULE A OF FORM 941 QUARTERLY REPORT OF WAGES TAXABLE UNDER THE FEDERAL INSURANCE CONTRIBUTIONS ACT

Employer's Account Number (17)	Date Quarter Ended	Page Number	State		FEDERAL NON-TAXABLE EARNINGS	PRESENT EARNINGS TO DATE	PREVIOUS EARNINGS TO DATE
			Federal	State			
(17) Print in this space employer's name, address of principal place of business, and identification number exactly as shown in item 11 on Form 941.  (18) Name of Employee 381-20-1846 John C. Abbott 401-31-2176 Fred A. Aqair 121-06-3321 A. N. Boyzell							
	1,005.00	1,005.00	1,005.00	.00	1,005.00		
	1,110.25	1,110.25	1,110.25	.00	2,110.25	1,982.50	
	1,250.00	1,250.00	1,250.00	.00	3,360.25	2,200.00	
						3,550.00	2,300.00

STATE EXCESS OVER \$3,000

and number of employees

(W-2 PROOF JOURNAL)

(TOTAL WAGES PAID)	(INCOME TAX WITHHELD)	(COMBINED TAX)	(F. I. C. A.)	(COMPUTED F. I. C. A.)
3,000.00	240.00	300.00	60.00	60,000
3,501.00	340.10	410.12	70.02	70,020
3,464.70	398.10	482.10	69.29	69,294
2,675.50	281.16	350.45	84.00	525.00
	178.19	231.70	53.51	53,510
3,327.30	488.05	572.05	66.55	66,546
	285.85	352.40		
29,549.16	2,652.45	3,223.82		

**FORM W-2, Copy A**  
U. S. Treasury Department  
Internal Revenue Service

**WITHHOLDING TAX STATEMENT**  
195 - Federal Taxes Withheld From Wages

**For District Director**

Married  Single  City or State Withheld

**SOCIAL SECURITY INFORMATION**  
(Federal Insurance Contributions Act)  
Total F.I.C.A. wages (before payroll deductions) paid in 195 - **3,327.30**  
Total F.I.C.A. employee tax withheld, if any **66.55**

**INCOME TAX INFORMATION**  
Total wages (before payroll deductions) paid in 195 - **3,327.30**  
Federal Income Tax withheld, if any **285.85**

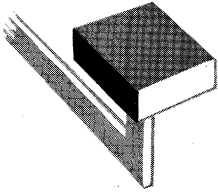
Type or print EMPLOYEE'S social security acct no., name, & address below:  
**381-05-7853**  
• Emil R. Hansen  
• 62 N. Cabot Ave.  
• Detroit 18, Mich.

Type or print EMPLOYER'S identification number, name, and address below:  
**38-0387840**  
Burroughs Corporation  
6071 Second Avenue  
Detroit 32, Michigan

**EMPLOYER: See instructions on other side.**

## W-2 Reports

The year-end load of preparing W-2 forms can be reduced to a simple job. The Sensimatic computes the F.I.C.A. tax on earnings under \$4200 and also deducts the F.I.C.A. tax from the combined tax, automatically printing the Income Tax withheld on the W-2 form.



# Bank Accounting

## Checking Accounts

CHECKS		DEPOSITS	DATE	NO. OF CHECKS PAID	BALANCE	DATE	NO. OF CHECKS PAID	BALANCE	ANALYSIS			
AMOUNT BROUGHT FORWARD									TRANS. ITEMS	CLERK. ITEMS	FLOAT	OTHER CHARGES
125.50-	27.84-		OCT 15-		2,566.74*	OCT 1		2,566.74				
374.62-	232.25-	550.00+	OCT 45-	2	2,413.40*	OCT 4	2	2,413.40				
1,243.39LS			OCT 55-	4	2,356.53*	OCT 5	4	2,356.53	3	5	40	.05
332.15-	92.38-	1,202.65+	OCT 65-	13	1,113.14*	OCT 6	13	1,113.14				
254.50-	175.90-		OCT 75-	15	1,891.26*	OCT 7	15	1,891.26	7	5	35	.15
175.90+EC			OCT 85-	16	1,636.76*	OCT 8	16	1,636.76				
440.41-	100.00-	375.00+	OCT 115-	18	1,471.35*	OCT 11	18	1,471.35	2	3	30	.05
110.80-	92.69-		OCT 125-	20	1,267.86*	OCT 12	20	1,267.86				
5.60-	180.50-											
92.21-	77.82-		OCT 135-	24	911.73*	OCT 13	24	911.73				
35.75-		1,368.90+	OCT 145-	25	2,244.88*	OCT 14	25	2,244.88				
2,588.00-	2,588.00+RT		OCT 155-	25	2,244.88*	OCT 15	25	2,244.88	7	5	40	.15
386.63-	125.72-											
176.90-		250.00+	OCT 185-	28	1,805.63*	OCT 18	28	1,805.63	2	3	10	.05
166.15-	34.75-		OCT 195-	30	1,604.73*	OCT 19	30	1,604.73				

LAST AMOUNT IN THIS COLUMN IS YOUR BALANCE

TOTAL BAL.	CHECKS PAID	NUMBER	RATE	TOTAL CHARGES
LESS FLOAT	TRANS. ITEMS	NUMBER	RATE	INCOME @ %
WORKING BAL.	CLERK. ITEMS	NUMBER	RATE	PROFIT
LESS RESERVE	OTHER CHARGES			LOSS
NET BAL.				
AVE. NET BAL.				

### Customer Statement Preparation

While customers' accounting in banks is relatively standardized, there are still a number of different posting plans in use. Whatever plan a bank may use, the posting machine can be applied to it readily.

The above illustration shows the statement as commonly prepared under conventional dual or single posting plans. Under the dual plan the depositors' ledgers are posted in one operation and then the depositors' statements in a separate operation. During both runs, the machine automatically accumulates net totals of old balances, checks and net count, deposits and net count, and net new balances. These totals on the two separate runs should agree with each other. Under single posting plans, only the statement is prepared. The machine accumulation of old balances is proved to a pre-list or post-list of old balances, or a paying run is made and the accumulated totals compared to those obtained on the statement run.





# Account Balance Control Plan

SHEET No. 4

NAME George G. Aldrich  
 ADDRESS 1117 Scott  
 Burroughsville

CHECKS	DEPOSITS	DATE	BALANCE
AMOUNT BROUGHT FORWARD			JAN 28 5- 4,255.73*
537.46 -	143.25 -	JAN 29 5-	3,575.02*
125.34 -	48.41 -	JAN 30 5-	1,863.77*
1,337.50 -	1,500.00 +	JAN 31 5-	3,154.07*
100.00 -	250.00 +	FEB 1 5-	3,248.32*
35.40 -			
3,154.07 +			
525.00 +			
10,602.75 +	2.52 -		4,469.00*
921.5 +	25.00 -		
16.25 -	62.00 -	FEB 1 5-	10,214.70*
6,374.66 +	3.58 -	FEB 1 5-	251.26*
94,265.86 +		FEB 1 5-	201.23*
2,526.07 +		FEB 1 5-	5,107.29*
536.35 +	452.30 -	FEB 1 5-	92,050.69*
152.43 +	164.50 -	FEB 1 5-	1,990.95*
13,153.06 +	17,360.37 -	FEB 1 5-	860.62*
2,515.47 +	24.25 -	FEB 1 5-	4.220*
527.36 +	34.25 -	FEB 1 5-	13,455.00*
252.06 +	324.27 -	FEB 1 5-	2,431.47*
21,636.58 +	25.00 -	FEB 1 5-	404.94*
936.47 +	2836.57 -	FEB 1 5-	227.06*
	141.50 -	FEB 1 5-	22,300.01*
	231.48 -	FEB 1 5-	1,005.49*
141.58 +	35.00 -	FEB 1 5-	124.44*
7,256.36 +	34.00 -	FEB 1 5-	5,305.26*
737.58 +	152.68 -	FEB 1 5-	406.69*
216.25 +	25.00 -	FEB 1 5-	288.60*
142.53 +	35.10 -	FEB 1 5-	66.81*
574.52 +	18.36 -	FEB 1 5-	88.84*
2,537.58 +	75.72 -	FEB 1 5-	298.94*
747.42 +	10.00 -	FEB 1 5-	2,257.95*
	35.26 +	FEB 1 5-	
	57.38 -	FEB 1 5-	
	142.50 -	FEB 1 5-	
	140.50 -	FEB 1 5-	
	73.00 -	FEB 1 5-	
1,217.32 +	132.60 -	FEB 1 5-	1,272.32*
	53.05 -	FEB 1 5-	
	240.65 +	FEB 1 5-	

*Proof Tape*

*First Run  
Account Balances*

3248.32\*  
 446.97\*  
 10,214.70\*  
 251.26\*  
 201.23\*  
 5,107.29\*  
 92,050.69\*  
 1,990.95\*  
 860.62\*  
 4.220\*  
 13,455.00\*  
 2,431.47\*  
 404.94\*  
 227.06\*  
 22,300.01\*  
 1,005.49\*  
 124.44\*  
 5,305.26\*  
 406.69\*  
 288.60\*  
 66.81\*  
 88.84\*  
 298.94\*  
 2,257.95\*  
 657.35\*  
 1,272.32\*

“A B C” means Account Balance Control. Unlike conventional posting plans that use a comparison method of proof or balancing, the ABC Plan proves balances as they are handled on the statement run. Before extending the balance on the statement, it is proven correct. Any errors are localized to the affected account and no additional balancing time is required when the operation is completed.

BOOKKEEPER BALANCING RECORD

BOOKKEEPER: \_\_\_\_\_  
 MACHINE PAY RUN *Jean Adams*  
 STATEMENT RUN *Betty Smith*

DATE *2/1/5-*  
 LEDGER *A-18*

RECORD OF STATEMENT RUN CORRECTIONS							
NO.	ACCOUNT NAME	PROOF	PROOF BALANCE	NO.	ACCOUNT NAME	PROOF	PROOF BALANCE
1				4			
2				5			
3				6			

OLD BALANCE	CHECKS	DEPOSITS	NEW BALANCE
TOTALS FROM MACHINE PAY RUN—UNAUDITED 340,880.98* *	56,145.80* *	45,164.78* FEB 1 5-	329,899.96*
PICKUP TOTALS MACHINE PAY RUN FOR ADJUSTMENT			
CORRECTIONS IN MACHINE PAY RUN			
AUDITED MACHINE PAY RUN TOTALS			
STATEMENT RUN TOTALS			

BURROUGHS *Account Balance Control* PLAN

**Old Balances**

3154.07	+	+
225.00	+	+
10,602.75	+	+

FIRST NATIONAL BANK BURROUGHSVILLE			
CHECKS	DATE	BALANCE	ANALYSIS
AMOUNT BROUGHT FORWARD		10,602.75	
25.00 -	JUN 31	10,602.75	
62.00 -			
301.05 -			
	FEB 1	10,214.70	

**Proof Tape**

First Run	Automatic	Proof
Account Balances	Even	Balances
3248.32	.00	3248.32
44697	.00	44697
10,214.70	.00	10,214.70

9215 + +  
1023 - -  
6374.66 + +  
9426.86 + +  
2526.07 + +  
536.35 + +  
122.43 + +  
13113.06 + +  
2515.47 + +  
527.36 + +  
232.06 + +

FIRST NATIONAL BANK BURROUGHSVILLE			
CHECKS	DATE	BALANCE	ANALYSIS
AMOUNT BROUGHT FORWARD		252.06	
35.00 +E	JUN 31	252.06	
25.00 -			
	FEB 1	227.06	

251.26 + +  
201.23 + +  
5107.29 + +  
92050.69 + +  
1,990.95 + +  
860.62 + +  
4.22E  
13,453.00 + +  
2,411.97 + +  
40.94 + +  
227.06 + +  
10.00E

21,636.58 + +  
536.47 + +  
141.58 + +  
7,256.36 + +  
737.58 + +  
216.25 + +  
142.53 + +  
35.26 + +  
574.52 + +  
2537.58 + +

FIRST NATIONAL BANK BURROUGHSVILLE			
CHECKS	DATE	BALANCE	ANALYSIS
AMOUNT BROUGHT FORWARD		2,239.95	
140.50 -	JUN 31	2,239.95	
414.63 -			
257.50 +	FEB 1	2,239.95	

22,300.01 + +  
1,005.49 + +  
124.44 + +  
5,305.26 + +  
406.69 + +  
288.60 + +  
68.81 + +  
58.84 + +  
2,395.4 + +  
2,237.95 + +  
18.00E

### Account Balance Control

The main advantages gained through the ABC Plan are these: 1) proof of account balances before they are printed on customers' statements; 2) automatic error detection; 3) systematized error correction; 4) positive balancing of each posting run.

BOOKKEEPER BALANCING RECORD					
BOOKKEEPER:	DATE	LEGER	PROOF	PROOF BALANCE	
MACHINE PAY RUN					
STATEMENT RUN					
NO.	ACCOUNT NAME	NO.	ACCOUNT NAME	NO.	PROOF BALANCE
1	By Anderson	4			
2		5			
3		6			
TOTALS FROM MACHINE PAY RUN UNADJUSTED		TOTALS FROM MACHINE PAY RUN ADJUSTED		TOTALS FROM MACHINE PAY RUN UNADJUSTED	
340,860.98 +		56,143.80 +		45,164.78 +	
340,860.98 +		56,143.80 +		325,895.96 +	
CORRECTIONS BY MACHINE PAY RUN		CORRECTIONS BY MACHINE PAY RUN		CORRECTIONS BY MACHINE PAY RUN	
		C.P. Arnell Co.		16.00E	
		275.30 -E			
		257.50 +			
AUDITED MACHINE PAY RUN TOTALS		AUDITED MACHINE PAY RUN TOTALS		AUDITED MACHINE PAY RUN TOTALS	
340,860.98 +		56,143.80 +		45,164.78 +	
340,860.98 +		56,143.80 +		325,895.96 +	

BURROUGHS Account Balance Control PLAN



# Savings Accounts

Today's modern accounting machines are designed to provide a great deal of flexibility in the handling of savings accounts. Basically, savings are handled on either a dual or unit plan system. The dual system incorporates the posting of the passbook only at the window; the ledgers are posted later and proved to the balance that was

extended to the passbook on the window operation. The unit plan, as the name implies, results in the posting of both the passbook and the ledger simultaneously at the window. Under either plan, totals are accumulated for cash balancing and for proving the accuracy of the work performed.

1	85,939.97+	617.55-	1,286.28+	JUL 15-	86,608.70**
2	111,348.21+	1,598.66-	3,052.65+	JUL 15-	112,802.29**
3	50,777.56+	478.45-	985.00+	JUL 15-	51,284.11**
4	53,123.35+	183.37-	2,525.50+	JUL 15-	37,463.48**

### PROOF CONTROL SHEET SAVINGS ACCOUNTS

OLD BALANCES	NEW BALANCES	PROOF	WITHDRAWALS	DEPOSITS	PROOF
.00*		.00**	.00*	.00*	
.01*	1533.76+		.00**	1000.00**	
553.76-	105.75+		7.55**	10.00**	
95.75-			100.00**	25.25**	
7.55-	850.00+		500.00**	155.85**	
950.00-	100.25+			5.00**	
75.00-	15.00+			651.84**	
25.00-	1,087.75+			25.00**	
1,587.75-	234.80+				
78.95-	105.00+		617.55*	1,286.28*	
100.00-	217.43+		617.55-	1,286.28*	668.73**
152.25-	15.00+				
110.00-					
	668.73**				
			35.00**	10.00**	
				500.00**	
				30.22**	
				50.00**	
.02*	25.00+				
15.00-	138.51+			590.22*	
173.51-	967.82+			590.22*	555.22**
467.82-	165.22+		35.00*		
135.00-	801.50+		35.00-		
751.50-					

### SAVINGS LEDGER

NAME \_\_\_\_\_ Acct. No. \_\_\_\_\_  
ADDRESS CONTROL LEDGER NO. 1

WITHDRAWALS	DEPOSITS	DATE	BALANCE
AMOUNT BROUGHT FORWARD		JUL 10-	87,950.45**
425.55-		JUL 11-	87,524.90**
100.00-	745.23+	JUL 12-	88,170.13**
5075.10-	1,611.85+	JUL 13-	84,706.88**
888.46-	2,121.55+	JUL 14-	85,939.97**
617.55-	1,286.28+	JUL 15-	86,608.70**

### SAVINGS LEDGER

NAME A. Depositor Acct. No. 9,315  
ADDRESS Anytown

WITHDRAWALS	DEPOSITS	DATE	BALANCE
AMOUNT BROUGHT FORWARD			
	100.00	JAN 15-	100.00**
	25.00	FEB 23-	125.00**
	35.00	APR 15-	160.00**
		MAY 25-	110.00**
50.00	25.00	JUL 15-	135.00**

### SAVINGS DEPOSIT

THE PROGRESSIVE BANK  
ANYTOWN

FOR ACCOUNT OF \_\_\_\_\_

DATE July 15, 1955 ACCOUNT NO. 9345  
NAME B. Depositor  
ADDRESS Anytown

CURRENCY	DOLLARS	CENTS
	75	=
CHECKS-		
PLEASE LIST CHECKS SEPARATELY		
TOTAL	75	=

### SAVINGS WITHDRAWAL

THE PROGRESSIVE BANK  
ANYTOWN

DATE July 15, 1955 ACCOUNT NO. 3333  
PAY TO MYSELF OR BEARER: \$100.00  
One hundred and 00/100 DOLLARS  
SIGNATURE B. Depositor  
ADDRESS Anytown

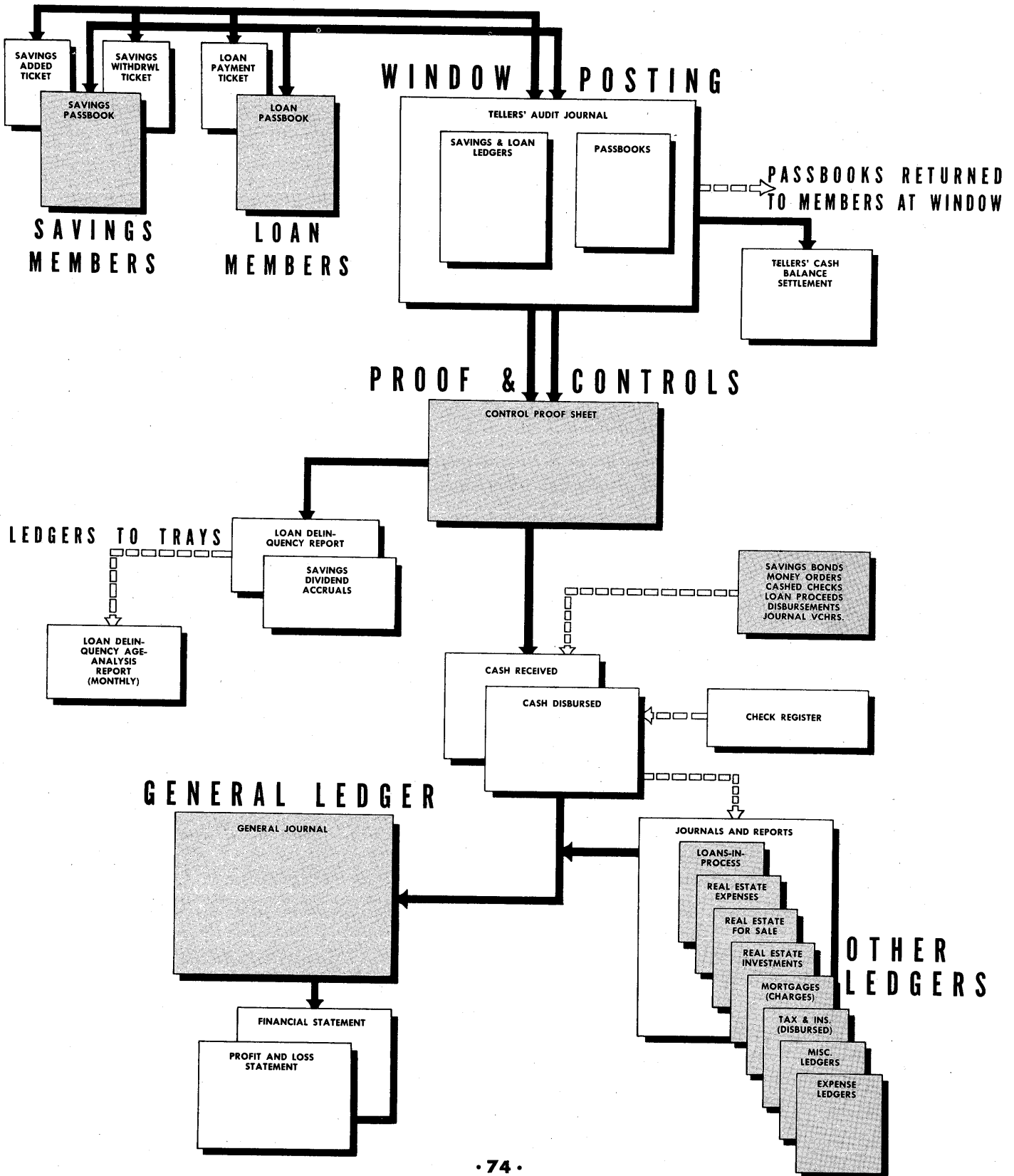
FASSBOOK MUST BE PRESENTED WITH THIS ORDER  
PLEASE DO NOT WRITE BELOW THIS LINE

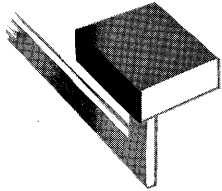




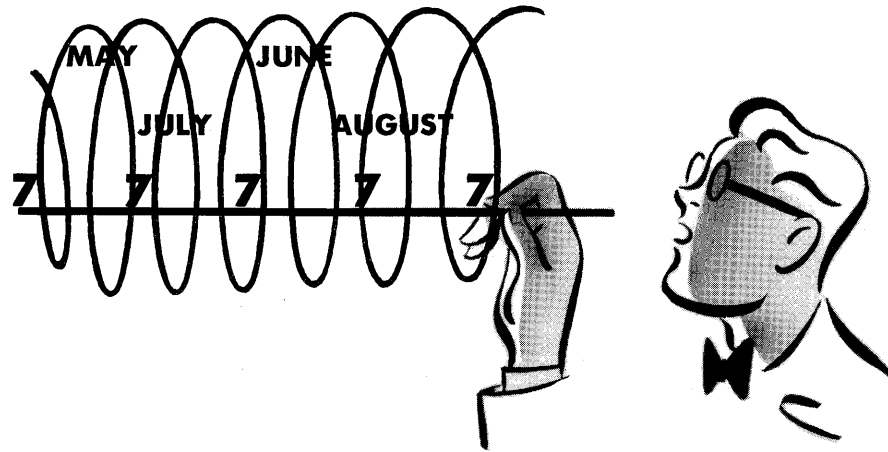
# Savings and Loan Accounting

The diagram below represents a flow of savings and loan work. It shows: a complete window plan, all proof and control accounting, cash received and cash disbursed journalized, all loan delinquency accounting, all other ledger posting, general ledger, financial and profit and loss statement.





## Cycle Billing



In recent years, the cycle billing method of rendering customer statements has been adopted and is gaining in popularity in department stores and large retail outlets. In essence, the plan provides for preparing statements at billing dates and spreads the mailing of statements over an entire monthly period instead of the first of the month. This results in a more even distribution of the work load and results in greater efficiency.

There are various cycle billing plans in use, but the one illustrated here has received the

greatest approval of users. The usual procedure is to accumulate the sales tickets, return tickets and cash receipt tickets along with a credit history card in a customer file.

At the billing date, the file is taken to the posting machine, the statement and credit ledger are inserted in the machine, and the purchases, returns and payments summarized on the statement, and then the totals are printed on the ledger card automatically. This ledger card serves as a reference for the Credit Department. The tickets and statements are then microfilmed and mailed to the customer.

STATEMENT

BURROUGHS DEPARTMENT STORES  
ANYWHERE, USA

ROBERT L. HESTON  
4936 E. BERMLEY RD  
DETROIT 18 MICHIGAN  
1168-286 B \* I AT

4936 E. BERMLEY RD  
DETROIT 18 MICHIGAN

AMOUNT \$

PLEASE DETACH AND ENCLOSE WITH YOUR REMITTANCE. THANK YOU.

BALANCE	PURCHASES		PAYMENTS	RETURNS	BILL DATE	BILL DUE	BALANCE DUE
	AMOUNT	ITEMS					
47.50	3.07	12.15					
	4.76	1.29					
	24.25	.88					
	3.60		47.50-	3.07-	MAY 85-	9	46.93*

ACCOUNTS ARE DUE WITHIN 10 DAYS AFTER THIS CLOSING DATE. ↑  
FOR YOUR CONVENIENCE SALES CHECKS AND CREDIT ITEMS COVERING ALL TRANSACTIONS THROUGH THE ABOVE CLOSING DATE ARE ENCLOSED. PLEASE PRESENT THEM WITH THE STATEMENT IF THERE IS AN INQUIRY ABOUT ANY ITEM.

Printed in U. S. America

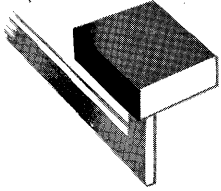
CREDIT HISTORY LEDGER

ROBERT L. HESTON  
4936 E. BERMLEY RD  
DETROIT 18 MICHIGAN  
1168-286 B \* I AT

MO	BALANCE	PURCHASES	PAYMENTS	RETURNS	PART DUE	REMARKS	BALANCE FORWARD
JAN	32.70*	32.70	87.65	.00	.00*		87.65
FEB	109.14*	113.29	32.70	4.15			
MAR	78.15*	44.01	75.00	.00	34.14*		
APR	47.50*	47.50	65.17	12.98	.00*		
MAY	46.93*	50.00	47.50	3.07			
JUN							
JUL							
AUG							
SEP							
OCT							
NOV							
DEC							



Printed in U. S. America



# Layaway and Installment Accounting

The accounting for layaway and installment sales is substantially the same. In both, the problem is one of recording payments in the customer's receipt book and on his ledger record and of accounting for cash taken in. The difference in terminology indicates who has possession of the goods. Layaway means that the store will retain possession until the merchandise is paid for. In installment sales the customer has possession of

the merchandise while payments are being made

Here purchases and payments are printed in separate columns. Both the customer's receipt book and the ledger sheet are original prints. A carbon copy audit record of all transactions is provided. The machine issues a temporary receipt when the customer fails to bring his receipt book. Many businesses prefer to use only unit receipts, eliminating receipt books entirely.

NAME Richard C. Williamson		ACCT. NO. 1234	
ADDRESS 231 Pine St.		PAY. 28.33	
EMPLOYER Black Mfg. Co.			
RELATIVES David Williamson, Brother			
REFERENCE James J. Smith			
ADDRESS 1421 Kingston			
REFERENCE E. B. Grimm			
ADDRESS 6074 Washington St.			
PURCHASES	PAYMENTS	DATE	BALANCE
399.95+			340.00*
	59.95-	JAN 25-	

NAME Richard C. Williamson		1234		ACCOUNT NO.	
ADDRESS 231 Pine St.					
PAYMENT OF \$28.33 ON THE 1st EACH MONTH					
DATE	DESCRIPTION	DATE	DESCRIPTION		
1/25-	Television Receiver				
	Model B-14-701				
PURCHASES	PAYMENTS	DATE	BALANCE		
399.95		JAN 25-	399.95*		
		JAN 25-	340.00*		
		JAN 25-	311.67*		
		JAN 25-	283.34*		
		JAN 25-	255.01*		

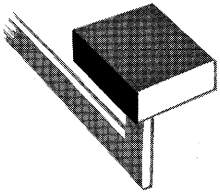
254.64-	23.29R#254.64+	1,344	23.29-	APR 15-	231.35*
153.89-	15.78R#153.89+	1,329	15.78-	APR 15-	138.11*
247.61-	31.45R#247.61+	1,111	31.45-	APR 15-	216.16*
	250.00**	1,657	295.00+		
283.34-	28.33R#283.34+	1,234	45.00-	APR 15-	250.00*
			28.33-	APR 15-	255.01*

TEMPORARY RECEIPT	
NAME Richard C. Williamson	1234
ADDRESS 231 Pine St.	ACCOUNT NO.
YOUR RECEIPT BOOK IS A VALUABLE RECORD. KEEP THIS TICKET WITH YOUR RECEIPT BOOK.	
DATE PAID, AMOUNT PAID AND BALANCE DUE ARE SHOWN BELOW	
28.33	APR 15-
	255.01*

**NORMAN'S TELEVISION SALES**  
**BURROUGHSVILLE**  
Made in U. S. America



# Budgetary Accounting

Budgetary accounting in governmental institutions is of paramount importance because all activities operate with funds allotted to them, and expenditures must not exceed these allotments. It is extremely important, therefore, that the unencumbered balance (available free balance) is known at all times for efficient management of funds. It is also important that the total of expenditures and the outstanding encumbrances against the funds are also available at all times.

This machine meets all the requirements of an efficient budgetary accounting system. It is fast and highly automatic and makes possible the posting of 8 types of entries in one run:

(1) Budget increases

- (2) Budget decreases
- (3) Encumbrances
- (4) Encumbrance cancellations
- (5) Vouchers
- (6) Voucher cancellations
- (7) Liquidations
- (8) Voucher liquidations

In addition to the register of transactions a statement of the ledger postings may be produced as a by-product and furnished to activity heads to show them daily changes in the fund status, if desired. As illustrated below, periodic reports can be made simply by copying from up-to-date ledger totals and balances the required information, which is then submitted to the proper officials.

## BUDGET REPORT

DATE JULY 30, 195-

DEPARTMENT PUBLIC WORKS

ACCOUNT NUMBER	BUDGET	EXPENDITURES	UNEXPENDED BALANCE	OUTSTANDING ENCUMBRANCES	UNENCUMBERED BALANCE
201	12,500.00	1,880.00 -	10,620.00 •		10,620.00 •
202	5,425.00	560.28 -	4,864.72 •	387.50 -	4,477.22 •
203	8,700.00	279.20 -	8,420.80 •	535.00 -	7,885.80 •
	26,625.00	2,719.48 -	23,905.52 •	922.50 -	22,983.02 •



DAILY STATEMENT  
AND  
REGISTER OF BUDGET TRANSACTIONS

PREVIOUS BALANCES	PROOF	ACCOUNT NO.	DATE	REFERENCE		ENCUMBRANCES		EXPENDITURES PLACED	BUDGET ENTRIES EXPENDITURE CLASSES	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES	BUDGET	UNENCUMBERED BALANCE
				VOUCHER NUMBER	ENC. NUMBER	LIQUIDATIONS	PLACED						
1,560.00 --	.00	201	JUL 30 5-	1,230				940.00		.00	1,880.00 *	12,500.00	10,620.00 *
1,477.22 --	.00	202	JUL 30 5-	1,231	8,778	255.50	285.50	255.50		387.50	560.28 *	5,425.00	4,477.22 *
1,164.80 --	.00	203	JUL 30 5-	1,255	8,699	204.50		198.50		535.00	279.20 *	8,700.00	7,885.80 *
						460.00	285.00	1,394.00		1,394.00 9 *	.00 1 *	.00 2 *	.00 3 *
										.00 5 *	.00 4 *		

BUDGET LEDGER

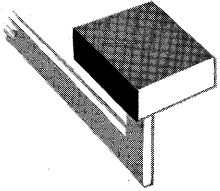
ACCOUNT NO. 203  
PAGE NO. 1

ACCOUNT MATERIAL AND SUPPLIES

ACTIVITY

DEPARTMENT PUBLIC WORKS

DATE	REFERENCE		ENCUMBRANCES		EXPENDITURES PLACED	EXPENDITURES	BUDGET ENTRIES EXPENDITURE CLASS	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES	BUDGET	UNENCUMBERED BALANCE
	VOUCHER NUMBER	ENC. NUMBER	LIQUIDATIONS	PLACED							
JUL 15-	18						8,700.00			8,700.00	8,700.00 *
JUL 55-		8,699		204.50							
JUL 55-		8,708		55.00							
JUL 55-	1,123				27.70			259.50	27.70 *	8,700.00	8,412.80 *
JUL 185-		8,855		250.00							
JUL 185-	1,145	8,708		55.00				454.50	80.70 *	8,700.00	8,164.80 *
JUL 185-EC	1,123				2.00 -						
JUL 305-		9,120		285.00				535.00	279.20 *	8,700.00	7,885.80 *
JUL 305-	1,255	8,699		204.50		198.50					

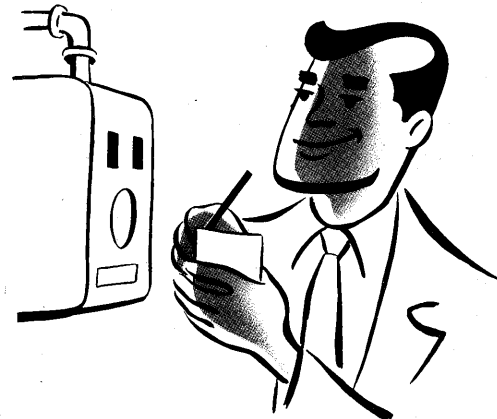


# Utility Billing

## Stub Plan

CUSTOMER'S BILL				CASH STUB			LEDGER RECORD			
METER READINGS		CODE USED	AMOUNT	DATE	CODE	AMOUNT	METER READING	DATE CODE	USED	AMOUNT
PREVIOUS	PRESENT									
1,500	1,554	54	2.70							
3,530	3,600	70	3.50							
5,798	5,860	62	3.10							
7,533	7,643	110	5.50							
4,522	4,566	44	2.20							
4,500	4,585	85	4.25	JAN 30	WA	4.25	4,585	JAN 30 WA	85	4.25

Payable within 10 days of above date without penalty



Utility billing is a term given to the operation of rendering bills to customers of public utility companies. While there are many variations in practices of different companies, there are three basic types of billing plans:

1. Stub plan
2. Bill and ledger plan
3. Register sheet plan

The differences in the plans are evident from the illustration. The stub plan provides a ledger

stub which becomes a ledger record with each customer. This stub is filed in customer order until paid, at which time it is placed in a paid file. The bill and ledger plan provides a separate ledger for each customer and gives a continuous history record of the activity with each customer. The register sheet plan provides a customer record on a sheet. Any of the plans can be handled very readily with Burroughs machines and the plans may be either net, or gross and net billing on either paper or post card bills.

## Bill and Ledger Plan

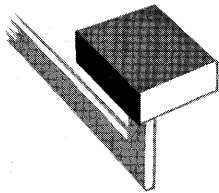
CUSTOMER'S BILL				CASH STUB			
METER READINGS		K. W. H. USED		DATE		TOTAL DUE	
PREVIOUS	PRESENT						
17 65	18 65		1 00	APR 15	FA	3.00	3.00
PAYABLE WITHIN 10 DAYS OF ABOVE DATE WITHOUT PENALTY							

35 85	35	.11	1.05	.00	APR 15	1.05 *
23 25	1 60	.48	4.80	.00	APR 15	4.80 *
33 24	1 10	.33	3.30	.00	APR 15	3.30 *
66 40	68	.20	2.04	1.50	APR 15	3.54 *
18 65	1 00	.30	3.00	.00	APR 15	3.00 *

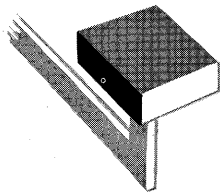
METER DEPOSIT DATA				MEMBERSHIP RECORD			
NUMBER	AMOUNT	RECEIVED	REFUNDED	John W. Forrest 12-034 1027 W. 5th Street CUSTOMER'S LEDGER			
METER READING	K. W. H. USED	PENALTY	NET	MISC.	CREDITS	DATE	BALANCE
BROUGHT FORWARD							
15 65	95	.29	2.85	.00	2.85 -	JAN 15 JAN 22	2.85 * .00 *
16 75	1 10	.33	3.30	.00	3.30 -	FEB 15 FEB 21	3.30 * .00 *
17 65	90	.27	2.70	2.50	5.20 -	MAR 15 MAR 22	5.20 * .00 *
18 65	1 00	.30	3.00	.00		APR 15	3.00 *

## Register Sheet Plan

REGISTER SHEET											
DATE	METER READINGS		CODE USED	AMOUNT	NAME ADDRESS	ACCOUNT NO	FINAL BILLS		CREDIT		BALANCE
	PREVIOUS	PRESENT					DATE	AMOUNT	DATE	AMOUNT	
JAN 30	3,256	3,279	EL 23	3.45	William R. Scott 1702 N. West Street	15-172					
JAN 30	4,530	4,562	EL 32	4.80	Robert J. Duncan 305 Woodlawn	8-010					
JAN 30	1,372	1,410	EL 38	5.70	Richard A. Block 62 Boston Road	12-115					
CUSTOMER'S BILL				CASH STUB							
METER READINGS		CODE USED	AMOUNT	DATE	CODE	AMOUNT					
PREVIOUS	PRESENT										
1,372	1,410	EL 38	5.70	JAN 30	EL	5.70					
PAYABLE WITHIN 10 DAYS OF ABOVE DATE WITHOUT PENALTY											



## *Other Machines*



## *Adding Machines*

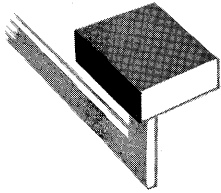
Accounting machines are production machines and may be compared to such production machines as lathes, grinders, screw machines, etc., in the factory. Just as production machines in the factory do not eliminate the need for screw drivers, wrenches, and pliers, so accounting machines in the office do not eliminate the need for adding machines. A wide range of adding machines is available, each machine built to provide a specified result. It is just as important to be familiar with adding machines and their applications as it is to be familiar with accounting machines and their applications.

It is possible to purchase "more" adding machine than is needed for a specific job just as it is possible to purchase an inadequate adding machine. Machines are available in various capacities; they may be hand or electrically operated;

they may be built to add only or to add and subtract; they may be equipped with a minus balance mechanism so as to produce a true minus balance when more is subtracted than added; they may be equipped with narrow carriages, wide carriages, front-feed carriages, tabulating carriages or carriages with split platens to accommodate side by side two forms that require independent spacing. A few of the adding machines and some of the adding machine applications are illustrated in the following pages.

### **Adding-Subtracting Electric Operation**

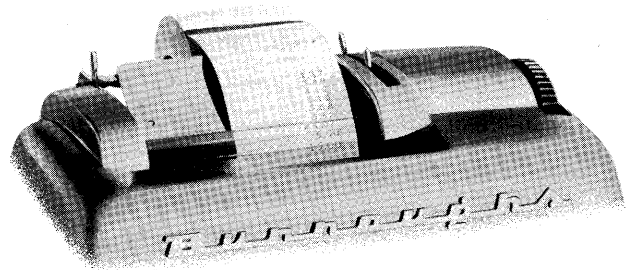
The machines illustrated above are electrically operated adding-subtracting machines, capable of performing rapidly problems in multiplication and division. Both have listing capacities of 10 columns and provide plus and minus totals.



**The Carriage  
for the Job  
to be Done**

**The Narrow Carriage**

Narrow carriages on full keyboard machines are surprisingly versatile. The tape may be removed and a narrow form substituted. Figures may then be listed and totaled directly on the form. This eliminates the need for listing by hand and the copying of totals from a separate adding machine tape. Deposits slips, statements, inventory lists and many other forms may be prepared in this way.



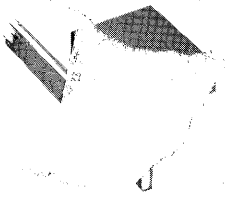
NAME	
D. O. Baily	
DATE	
6/24/5-	
NUMBER	
472-16-5767	
REGULAR EARNINGS	
41.16	
OVERTIME	
.98	
TOTAL EARNINGS	
42.14*	
DEDUCTIONS	
SOCIAL SECURITY TAX	
.84-	
INCOME TAX	
2.80-	
HOSPITAL INS.	
.60-	
HEALTH & ACC. INS.	
BONDS	
MISC. DEDUCTIONS	
1.50-	
NET EARNINGS	
36.40*	
THIS IS YOUR RECORD OF YOUR EARNINGS AND STATEMENT OF DEDUCTIONS.	
<b>Burroughs</b> ⊕	

STATEMENT	
CHARGES .00*	
1.25	
4.50	
7.50	
5.00	
1 2.00	
2.50	
3.00	
2.35	
4.79	
.23	
CREDITS 22.00-	
BALANCE FORWARD 5.00	
PAY THIS AMOUNT 26.12*	
COUNT AS PER TICKETS ATTACHED	

To Mrs. J. H. Albert  
7120 Poplar St.  
City

DEPOSITED IN THE FIRST NATIONAL BANK BURROUGHSVILLE	
DOLLARS   CENTS	
* 450.00	
CURRENCY	69.32
SILVER	
CHECKS:	
(If in City, name of bank; if out of City, name of place where payable)	
	37.82
	61.60
	55.40
	32.20
	98.70
	45.00
	123.50
	121.60
	222.45
	3.00
	78.50
	39.20
	45.80
	37.62
	29.80
TOTAL	1551.51*
CREDIT ACCOUNT OF	
R. P. Nye	
Printed in U. S. A. Form G 2011	
DATE Jan. 28 195-	
TR.	CLG.
FLOAT	MISC.

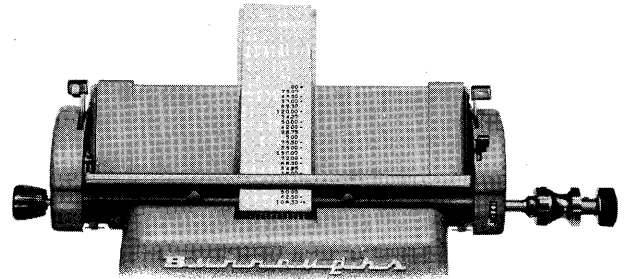
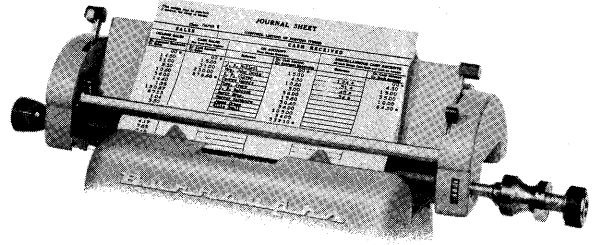
PLEASE DO NOT WRITE IN THIS SPACE



# The Carriage for the Job to be Done

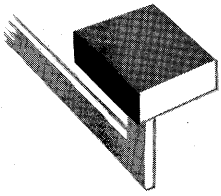
## The Wide Carriage

Burroughs wide carriages are optional on various styles and capacities of machines. A wide carriage accommodates forms up to 11 3/4" wide. It is exceptionally useful for direct listing in columns on wide sheets or for preparing Social Security reports and similar forms. Listing and adding or subtracting directly on such forms eliminates one complete handling of the figures. A roll paper holder is included to permit listing on a tape.



ACCOUNTS RECEIVABLE TRIAL BALANCE and ANALYSIS OF ACCOUNTS					
Date 6/30/5-					
ACCT. NO.	CURRENT	30 DAYS	60 DAYS	90 DAYS and OVER	TOTAL
.02 #	1 4 5.30				1 4 5.30 *
.06 #		3 5.00		1 0.00	4 5.00 *
.10 #	4 5.85	2 5.00	1 5.50		8 6.35 *
.14 #	5 6.30				5 6.30 *
.16 #		7 9.80	2 2.55	1 0.00	1 1 2.35 *
.21 #	2 7 3.20	2 6 7.80	1 4 7.00		6 8 8.00 *
.25 #				1 2 5.60	1 2 5.60 *
.28 #	5 2.80	1 3.60			6 6.40 *
.34 #	6 9.30	2 4.35	1.45		9 5.10 *
.42 #	2 5 8.15	3 5.00	1 0.64	1 6.90	3 2 0.69 *
.54 #		1 4 7.85	2 1.15		1 6 9.00 *
.63 #		1 5.34	1 2 5.00	5 4.00	1 9 4.34 *
.74 #	6 4.50				6 4.50 *
.79 #	1 3 0.85	2 0.00			1 5 0.85 *
.81 #				3 6.75	3 6.75 *
.87 #	1 5.95	3 4.05			5 0.00 *
.95 #	1 2 5.45	3 4.06	5.75		1 6 5.26 *

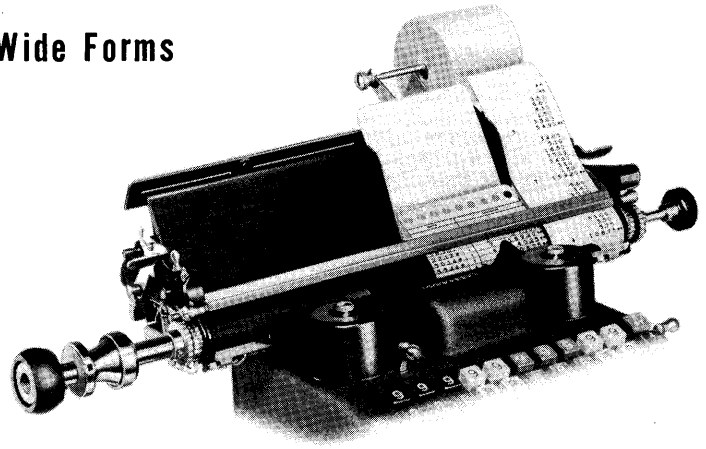
FINANCIAL STATEMENT	
PROFIT AND LOSS STATEMENT	
JANUARY 1 to APRIL 30	
<b>REVENUES</b>	
Sales (This Year to Date)	3 8 1 2 5 8 8 - .00 *
Cost of Merchandise Sold	3 1 3 5 3 9 0 -
<b>GROSS PROFIT FROM SALES</b>	<b>6 7 7 1 9 8 8</b>
Discounts Earned	5 0 8 1 5 -
Interest Received	6 7 0 3 -
Miscellaneous Income	1 3 4 9 0 -
<b>TOTAL GROSS PROFIT</b>	<b>7 4 8 2 0 6 8</b>
<b>EXPENSES</b>	
Rent	6 4 0 0 0
Light, Heat, Power, Water	2 0 5 2 6
Postage, Telephone, Telegraph	1 0 2 1 0
Interest Paid, Discounts Allowed	9 8 7 3
Salaries	2 3 5 7 5 0
Taxes, Insurance	3 2 5 7 5
Supplies	2 1 8 4 0
Delivery Expense	6 5 2 6 5
Depreciation	4 9 7 2 0
Miscellaneous Expense	3 1 0 9 4
<b>TOTAL EXPENSE</b>	<b>5 4 0 5 5 3 *</b>
Total Gross Profit	7 4 8 2 0 6 -
Total Expense	5 4 0 5 5 3
<b>TOTAL NET PROFIT</b>	<b>2 0 7 6 5 3 8</b>



# The Carriage for the Job to Be Done

## The Wide Carriage for Narrow Tape and Wide Forms

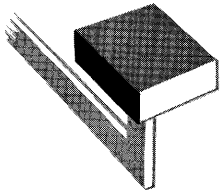
This Burroughs carriage features a "split" or divided platen which accommodates a listing tape and a wide form at the same time, permitting independent spacing of the tape and the form, and removal of the form without disturbing the tape. It is particularly useful in the preparation of statistical forms, where figures are listed and subtotaled on the tape and totaled on the form. The carriage tabulates automatically, or, it may be positioned for listing in columns on wide forms.



DEPARTMENT		
4-19	20	
CLERK	TAX	AMOUNT
A	225	75.09 *A
B	391	129.64 *A
C	690	229.23 *A
D	829	275.90 *A
E	406	134.42 *A
F	479	159.42 *A
G	431	143.47 *A
H	788	262.16 *A
J	634	210.11 *A
K	577	192.10 *A
L	632	210.30 *A
M	751	249.22 *A
N	403	133.23 *A
O	610	202.80 *A
P	320	106.38 *A
Q	483	160.83 *A
R	571	189.33 *A
S	576	190.92 *A
TOTAL	9796	3254.55 *B

THE MODERN STORE  
BURROUGHSVILLE

54	17.84	*A
14	4.50	*B
42	14.16	
17	5.77	
13	4.42	
64	21.45	
7	2.45	
14	4.50	
223	75.09 *A	
35	11.50	
103	34.30	
14	4.65	
190	63.29	
14	4.50	
10	3.30	
5	1.50	
20	6.60	
391	129.64 *A	
73	24.40	
20	6.65	
14	4.59	
20	6.67	
17	5.51	
14	4.50	
20	6.70	
26	8.70	
17	5.67	
24	7.98	
122	40.50	
97	32.30	
197	65.50	
6	2.00	
23	7.56	
690	229.23 *A	
15	5.00	
14	4.50	
20	6.60	
22	7.45	
92	30.50	
204	67.90	
165	55.00	
10	3.40	
6	2.00	
12	4.05	
17	5.50	
21	7.00	
135	45.00	
96	32.00	
829	275.90 *A	
4	1.22	
10	3.30	
30	9.87	
30		
28		
14		



## ***Adding — Subtracting Electric Operation***

### **Adds Two Sets of Figures Simultaneously or Lists Quantities and Amounts**

Some types of work require extra large adding capacity. The electrically-operated 13-column adding and subtracting machine with plus and minus totals (illustrated) fills this need. Either the full capacity of the machine may be used for accumulating a single total, or the keyboard may be "split" for accumulating separate totals of two classes of items, such as quantities and amounts, or for listing numbers and totaling amounts.

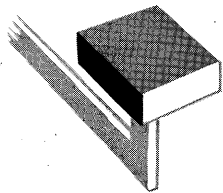


### **Adds and Subtracts Fractional Amounts**

There are many figuring jobs involving fractions—such as feet and inches, or inches and fractions of inches, or bushels and pounds. Electrically-operated machines (such as the one shown here) add and subtract such fractions as well as whole units. As the fractions are accumulated, they are automatically converted to whole numbers. These machines may also be used for listing reference numbers beside the amounts, or for automatically counting the items listed.

The machine with  $1/8$  fractions (illustrated) adds and subtracts to  $9999,999.997/8$ . Also available with  $1/12$  fractions, adding and subtracting to  $999,999.99^{11}$ , and with  $1/60$  fractions, adding and subtracting to  $999,999.99^{59}$ , or combinations of  $1/12$  and  $1/8$  fractions.





## Adding-Subtracting Electric Operation

### Group and Grand Totals 4 Totals or Reference Numbering

Multiple-Total adding machines save a great deal of time by accumulating group totals and a grand total without recapping. These machines feature three ways of accumulating amounts; that is, amounts may be accumulated in either of two registers, or in both registers simultaneously. Accumulated amounts are automatically designated as they are totaled, by the symbol of the register in which they are accumulated.

With the machine illustrated, by a simple shift of a lever the operator may: 1) Use full capacity of machine for listing and totaling amounts to 99999999,999.99; 2) "Split" the keyboard between columns 8 and 9 for listing reference numbers with amounts; 3) "Split" the keyboard between columns 8 and 9 for listing and adding two sets of amounts simultaneously.



		.00 * A
		.00 * B
45	15.12	A
165	355.90	B
255	315.45	A
2156	7,006.73	B
378	385.46	A
51	414.65	B
678	716.03	A
2372	7,777.28	B
232	387.00	A
417	1,643.20	B
446	329.03	A
1955	6,134.08	B

Adding and subtracting two sets of figures on each side of the keyboard—four sets in all, with four totals.

		.00 * A
		.00 * B
4313045616.67		A
105505074.11		B
7670570626.07		A
4134045.63		B
67017593.69		A
87839727043.82		B
999999999999.99		A
999999999999.99		B

Utilizing the full capacity of both registers of the machine; group and grand total.

		.00 * A
		.00 * B
2234	755.00	A
2235	610.00	B
2237	4,106.76	A
2238	3,956.44	B
	9,428.20	A
4108	582.50	B
4109	27.54	A
4110	34.00	B
4111	315.75	A
4112	822.00	B
	1,082.29	A
	1,0510.49	B

Listing and identifying numbers on the left; listing and adding amounts on the right; individual and grand totals.

# Calculators

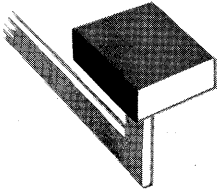


There are many types of calculations in an office to which the Multiplying Accounting Machine does not readily lend itself. For such calculations conventional calculators are used. It becomes important, therefore, to be familiar with such machines so as to provide the machine that fits the job specification.

Calculators are available with hand or electric operation, with totaling capacity from six to

fourteen digits, with one or two answer dials, and direct subtraction. Two typical styles are illustrated here.

The duplex — two answer dials — calculator is particularly suitable for such calculations as billing and payroll. All calculations from beginning to end are made without rehandling of figures, without recapping, straight to the answer.



# Calculators

Two answer dials, for results of individual calculations *and* grand totals or net results. Eliminates re-handling of figures. A great time

saver on such work as payroll and invoice calculations. Direct subtraction. Full cent feature.



## INVOICE

MARCH 30, 19—

ANY CUSTOMER  
ANYWHERE

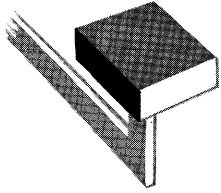
DATE	OUR ORDER NO.	YOUR ORDER NO.	CONTRACT NO.	
TERMS	HOW SHIPPED		SALESMAN	
QUANTITY	DESCRIPTION	PRICE	AMOUNT	NET
6 DZ.	ARTICLES	\$6.65 DZ.	\$39.90	
24 DZ.	ITEMS	.45 DZ.	10.80	
64 DZ.	ARTICLES	.47 1/2 DZ.	2.97	
			\$53.67	
	LESS 15%		8.05	\$45.62
	LESS FREIGHT ALLOWANCE 525 LBS. AT .45 1/2 CWT			2.39
				\$43.23

## CLOCK CARD

**2541**  
C E Burt  
891-12-9631

2 Dec  
22nd  
195-

Day	MORNING		AFTERNOON		OVERTIME		Act. Hrs.
	IN	OUT	IN	OUT	IN	OUT	
MON	8 00	12 00	1 00	5 00			8
TUE	8 00	12 00	1 00	5 00			8
WED	8 00	12 05	1 00	5 03			8
THU	7 56	12 01	12 58	5 00	6 00	9 01	11
FRI	8 00	12 02	1 00	5 04	5 59	8 00	10
SAT							
RATE		OVERTIME HOURS		HOURS WORKED			
\$ 1.78		2 1/2		45			
DEDUCTIONS				EARNINGS			
F. I. C. Tax	1 69	Regular	80 10				
Income Tax	10 70	Overtime	4 45				
Hosp.	1 00	Gross	84 55				
Ins.	80	Net Pay	70 36				



## *Validating and Receipting*



Whenever money is collected, only mechanical receipting, such as is provided by this machine, can protect and control receipts. It provides an exact receipting of the moneys collected. The customer is assured of receiving full credit for the amount paid. The automatically printed transaction number positively identifies each doc-

ument received with a corresponding number on the audit tape.

All forms are easily certified, regardless of size or shape. Certification prints both on the form and on the machine tape. Repeat receipting is mechanically enforced. Thus the customer's record is an exact duplicate of the record retained by the business.

BURROUGHS UNIVERSITY

RECEIVED OF

*Geo. P. Hunt*

PD02930 OCT 35- 50.00

J. D. BOLT  
TREASURER

BURROUGHS UNIVERSITY

Receipt Oct 3 1935

Received of William P. Smith

Notice	Subject	Amount
	Botany	
	Chemistry	
	Geology	
	Home Economics	
	Journalism	
	Physical Edu (M) (W)	
	Physics	
	Physiology	
	Zoology	
	Accounting	
	Statistics	
	Sec. Science	
	Education	
	Engineering	25 -
	Art	
	Applied Music	
	Law Notes	
	Pharmacy	
	Non-Residence	50 -
	Incidentals	15 -
	Graduation	10 -
	Military Science	
	Student Ticket	5 -
	Receivable	44
	Total	149 00

Original  
PD02929 OCT 35- 149.00

Validation

Cash  Check  MO

Checked: HFB Added: AR  
By: J. L. Lind By: J. L. Lind  
Comptroller

Colleges and universities speed student payments at registration time and control general receipts throughout the year with this versatile machine. Separate accumulations of cash and non-cash student credits or of student and general receipts, are provided. The machine is also readily adaptable to supply store sales, athletic association receipts and general cashing.

NBTC	879	JUL12	1,145.39	DS4	.00	454
NBTC	880	JUL12	435.16	454	.00	454
NBTC	881	JUL12	43067.78	DS4	.00	454
NBTC	882	JUL12	350.00	454	.00	454
NBTC	883	JUL12	240.00	DS4	.00	454
NBTC			50.00	454	.00	454



DEPOSITED WITH  
**THE FIRST NATIONAL BANK**  
BURROUGHSVILLE

THIS IS YOUR RECEIPT

ALWAYS OBTAIN A REGISTERED RECEIPT WHEN MAKING A DEPOSIT  
BANK SYMBOL, TRANSACTION NUMBER, DATE AND AMOUNT OF DEPOSIT ARE SHOWN BELOW

NBTC 883 JUL12 240.00 DS4

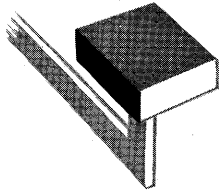
Burroughs

CUR	SIL	CHG	TO
NBTC	883	JUL12	240.00 DS4 50.00 454
PLEASE DO NOT WRITE IN THIS SPACE			

NBTC	899	JUL12	12327 454
			14.75 DS4
			75.00 454

1,336.43 454  
635.16 454

The machine shown on the preceding page, with some modification of features, is also used by bank tellers for receipting deposits. Here the problem is not only one of accounting for moneys taken in but also of moneys paid out, and of issuing of receipts for deposits, which may consist in part or in whole of checks.



## Cash Registers



Wherever goods or services are sold for cash, there is a need for cash registering machines to make sure that all the money taken in is properly accounted for. Besides protecting money, cash registering machines should also furnish management information to the operator of the

business. The type of information required varies with different businesses. That's why cash registering machines are built to fit specific requirements. The one illustrated above is ideally suited to food stores, cafeterias, etc., where several items must be added to arrive at the total of the sale.

# Micropilming

Today microfilming is an integral part of business administration. It consists of making a photographic record of printed or written matter on a reduced scale. It reduces storage space, simplifies reference and increases the permanence of records. Photographic accuracy and speed save time and eliminate the errors that are common to other methods of reproduction.

There are three steps in the microfilm process:

1. Photographing the document.
2. Developing the film.
3. Reading and analyzing processed film.

The unit used for photographing the document is known as the Recorder. Documents may be reduced during the photographing process in various ratios, depending on requirements and condition of the media photographed. If a ratio

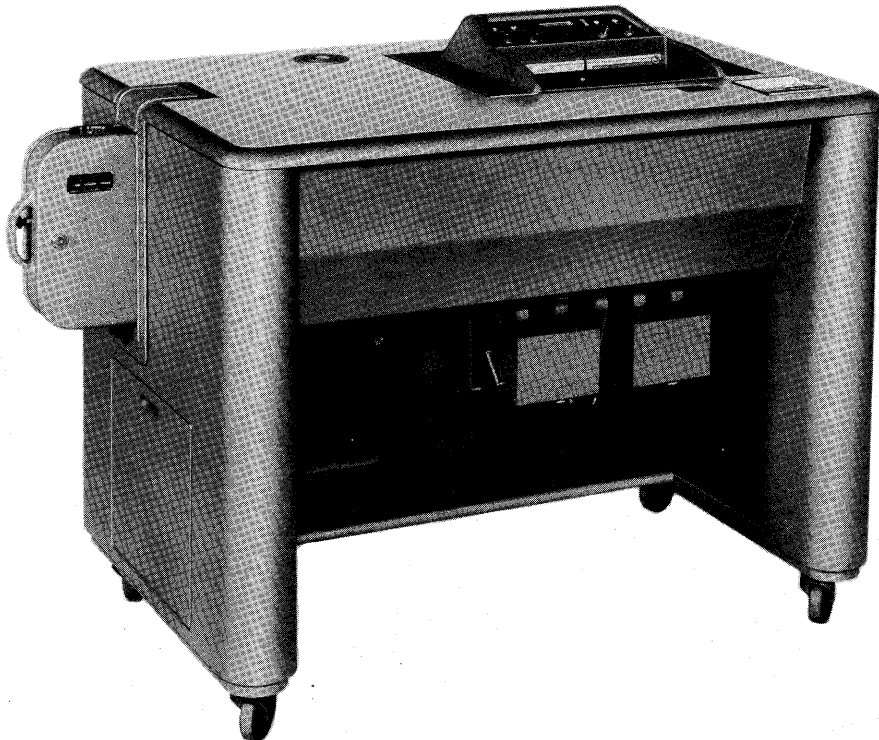
of 37 to 1 is used, a document 37 inches long may be reduced to 1 inch of film.

Processed film is read by placing it on the Reader which will project an enlargement of the small film image onto a translucent screen. Various magnifications are available, so that images on the screen may be as large or larger than the original document, or actual size.

## Micro-Accounting

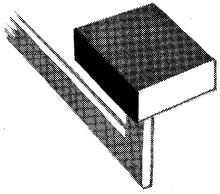
Micro-accounting refers to the use of high-speed photographic recording equipment in conjunction with conventional accounting methods.

Photographing the source documents recorded on a journal eliminates slow, expensive, manual descriptive procedures and replaces them with rapid, simple listing of numbers and amounts. For example, photographing documents instead of writing names on the journals is 36 times faster than machine typing of names and 72 times faster than writing them manually!

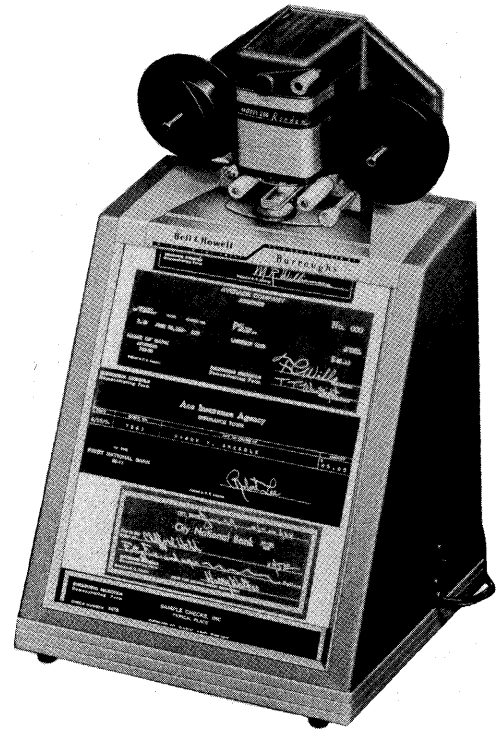
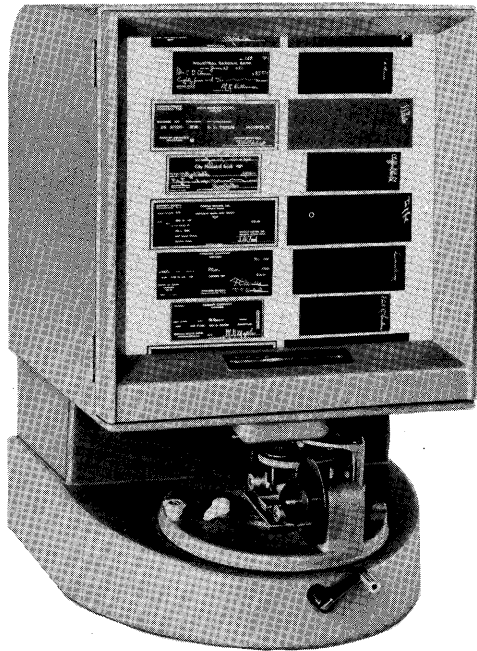


Microfilm Recorder

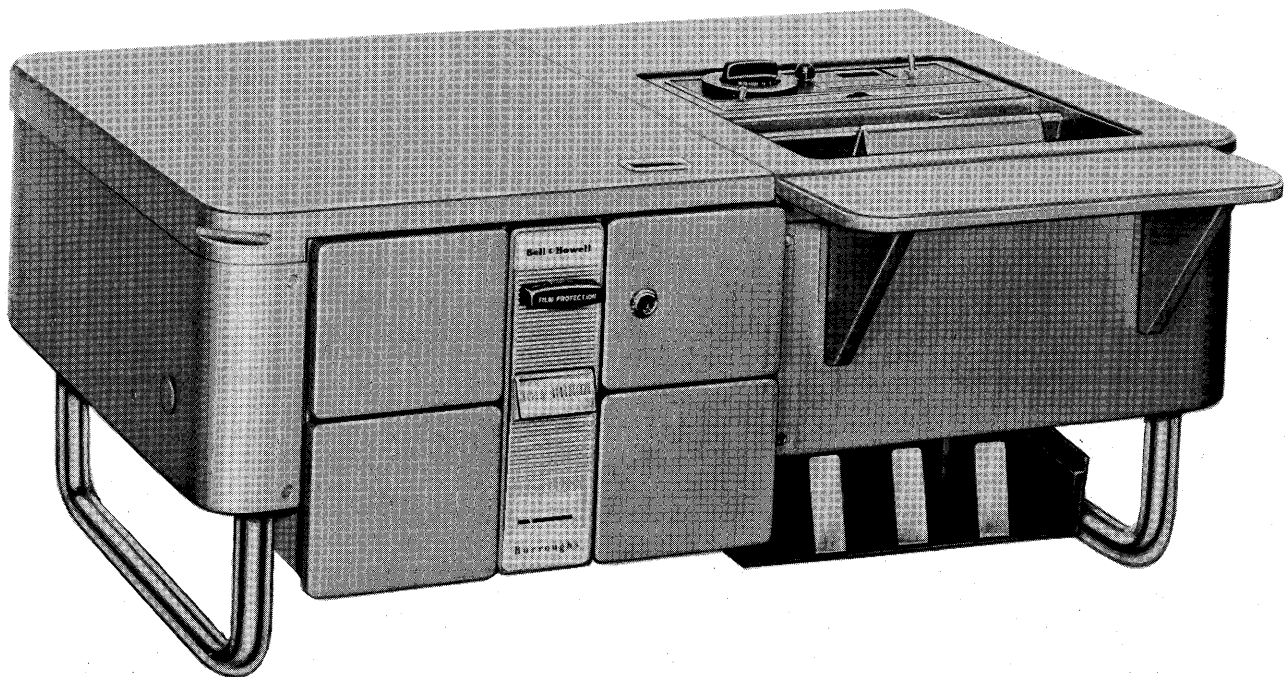




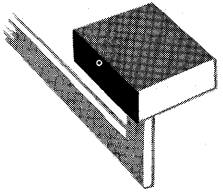
## Microfilming Readers



## Microfilming Recorder

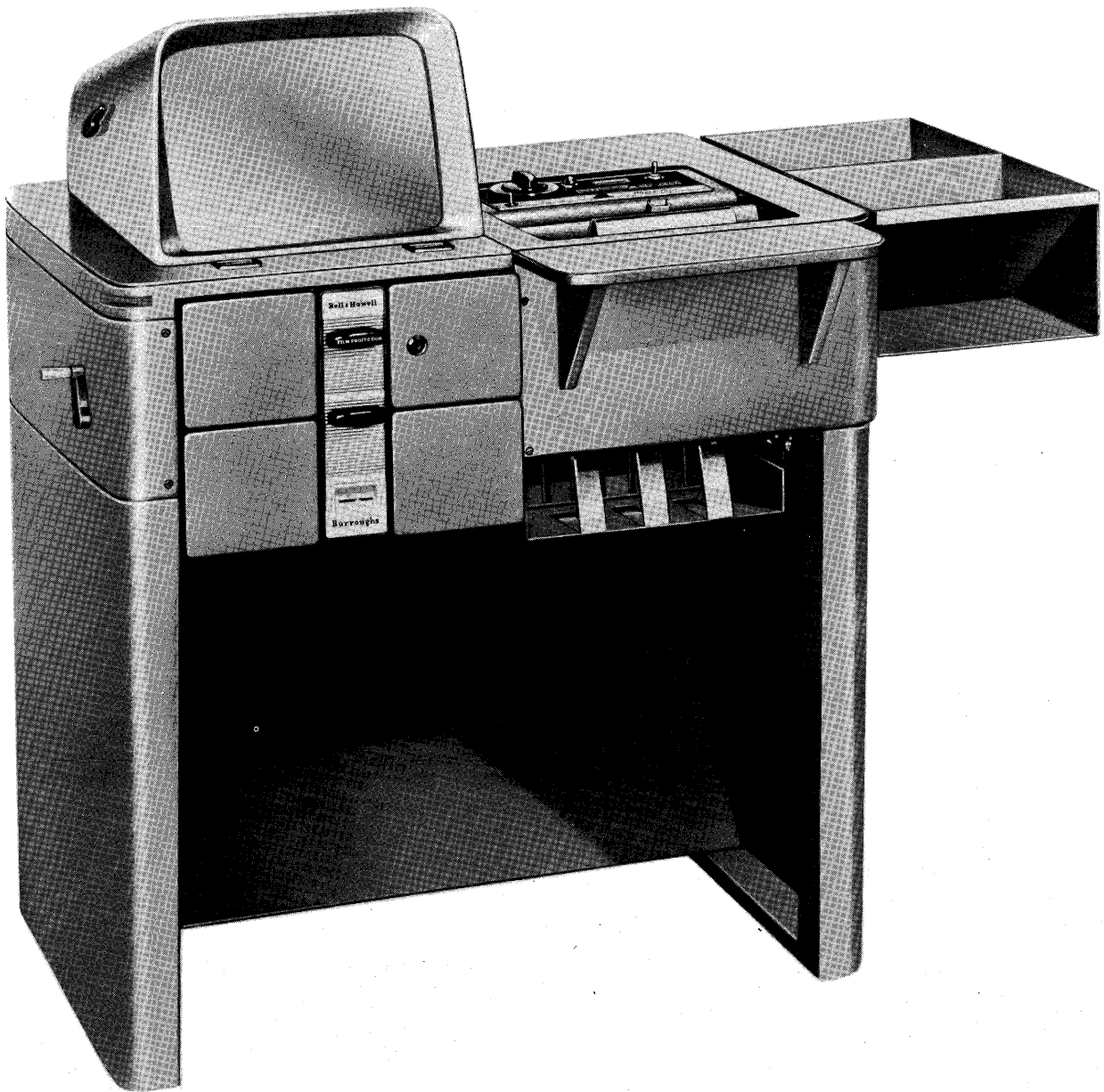


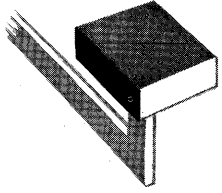




## *The Micro-twin*

Single Unit Microfilming  
with Accessories

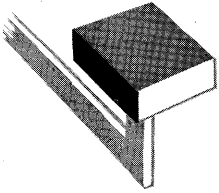




## *E 101 Electronic Digital Computer*

The Burroughs E 101 (Electronic Digital Computer) is basically a problem solving machine that will do the work of five to ten rotary desk calculators. Today, the E 101 is the only electronic computer designed specifically for low-cost solution of moderate-size problems. A fast, versatile printer records input data, significant results and final output in any format, while computing scientific, engineering and business problems. And, in size, the E 101 is just slightly larger than the average office desk.





## *Burroughs Sensimatic-To-Punched-Tape*

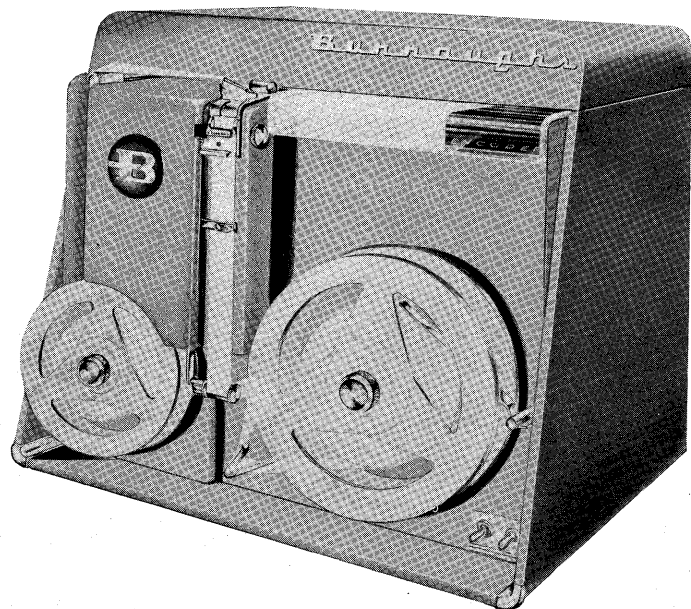
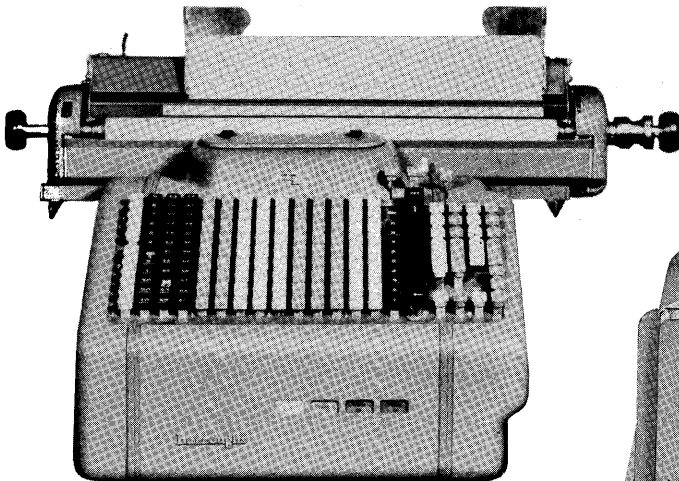
### Productive Input Equipment for Any Data Processing System

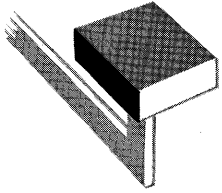
Basically, this equipment is a combination of Burroughs Sensimatic Accounting Machine and remote controlled paper tape punch. The Sensimatic keyboard provides a fast, easy, accurate means of recording original information. One or more records, usually those required on a daily up to date basis, may be completed directly from the operator input, with a high degree of automaticity from the program control unit.

Tape punching, for example, is completely automatic, without attention from the machine operator. Programming of functional codes, word length, information read, etc., are automatically controlled from the machine. Cipher codes also are punched automatically as required,

without being entered on the keyboard. Introduction of other special codes may be automatic from the carriage position, motors bars, character keys and other sources.

This equipment, therefore, maintains the desirable medium of direct productive results from operator input. Ordinary card punching and verifying equipment, on the other hand, are distinctively non-productive—that is, they can not provide a computed result. The punched tape, really an automatic by-product of the productive operator input, can easily be processed in an appropriate manner without repetition of operator input.

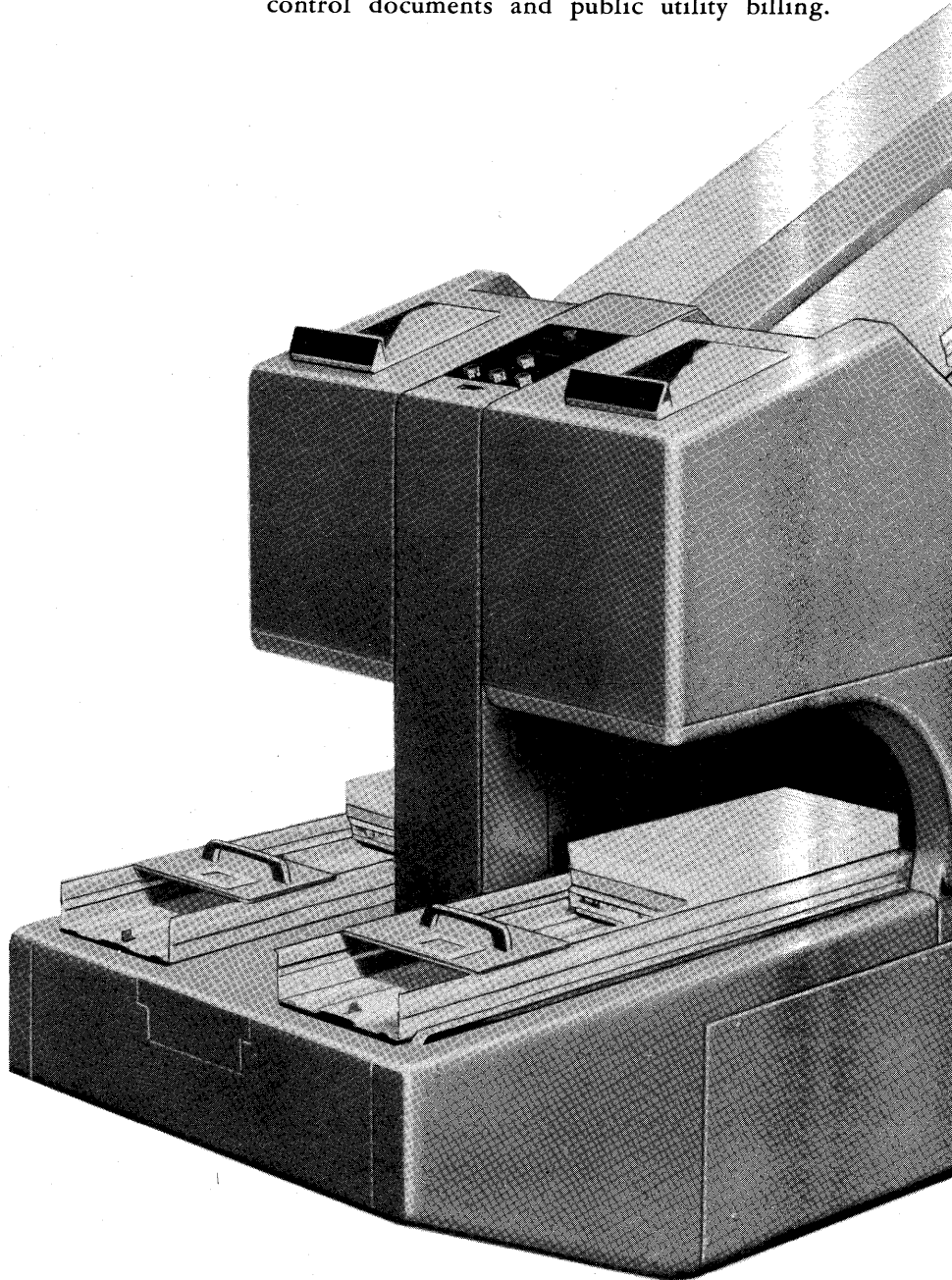




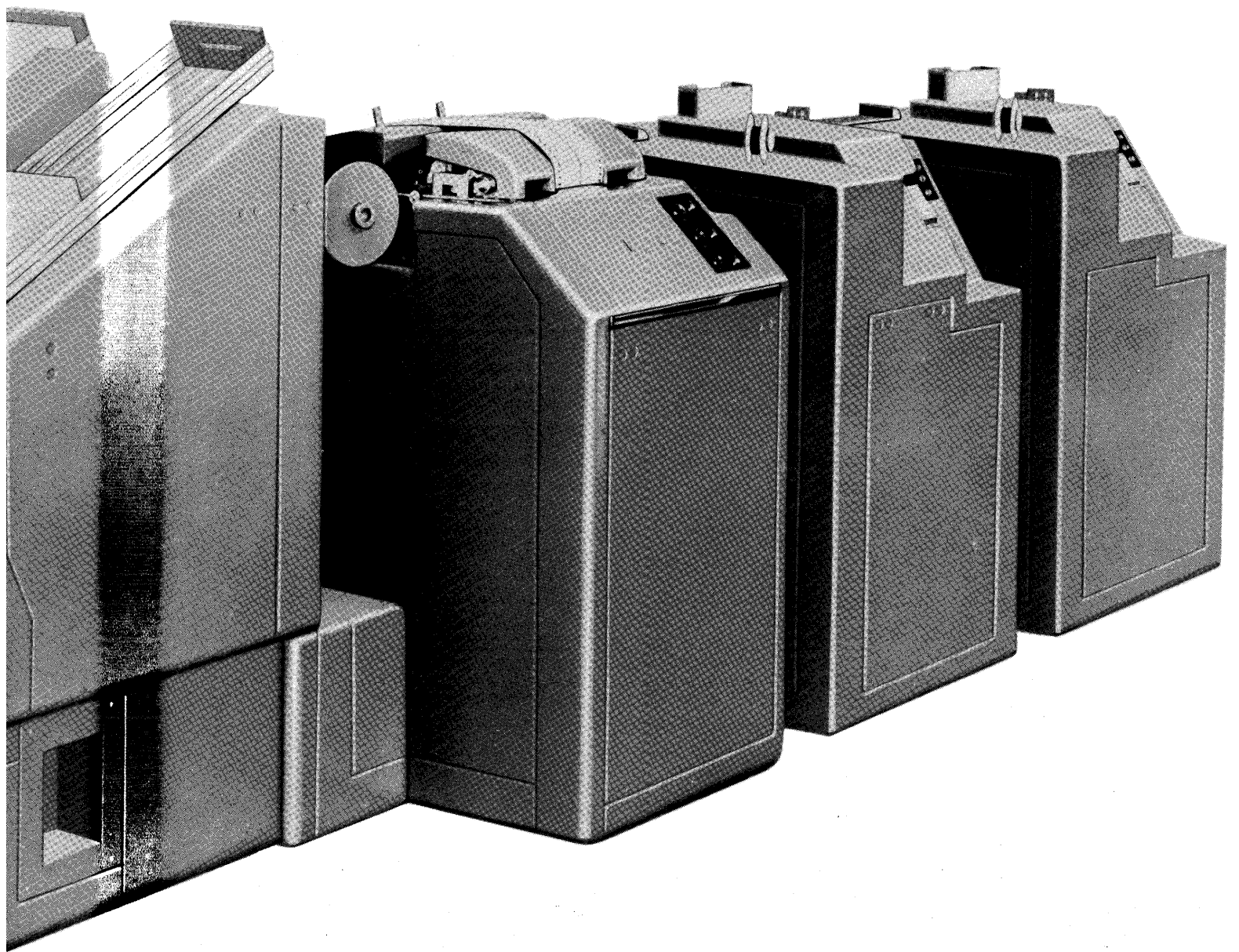
## *Electronic High Speed Printer and Punch*

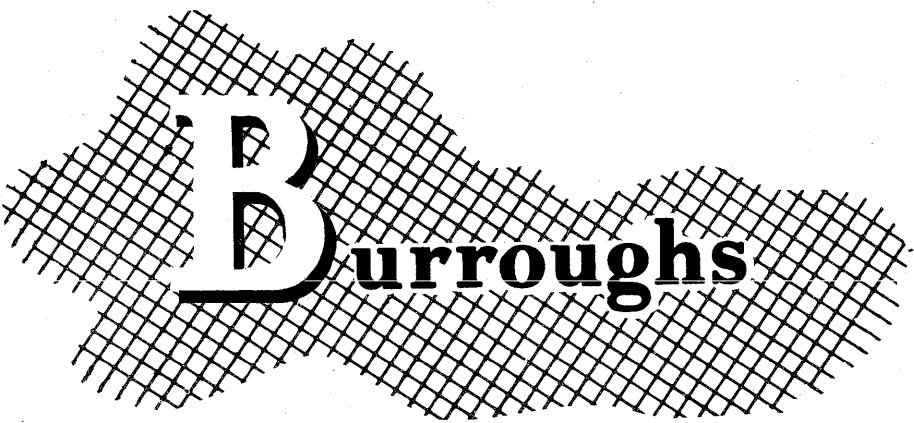
The Burroughs G 101 Electronic High Speed Printer and Punch is specifically designed for high-speed transformation of source records into computed data, printed and punched on cards and printed on sheets for additional transcriptions. Especially effective for high-volume jobs, a single G 101 can do the work formerly accomplished by ten automatic accounting machines and an even greater number of typing, imprinting and posting machines.

For the business that demands high-volume output from source records, the Burroughs G 101 saves manpower through mechanization and saves time through its incredible speed. Here are some of the common records that can be handled in great volume by the G 101: dividend checks and related documents, magazine subscription fulfillment and renewal notices, payroll disbursements and related documents, billing and statement preparation, insurance premium and dividend notices, direct mail promotion, production control documents and public utility billing.







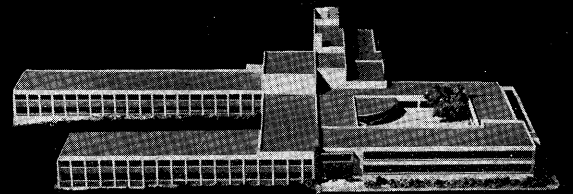
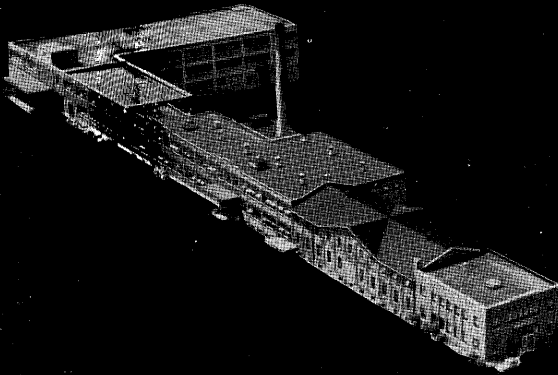
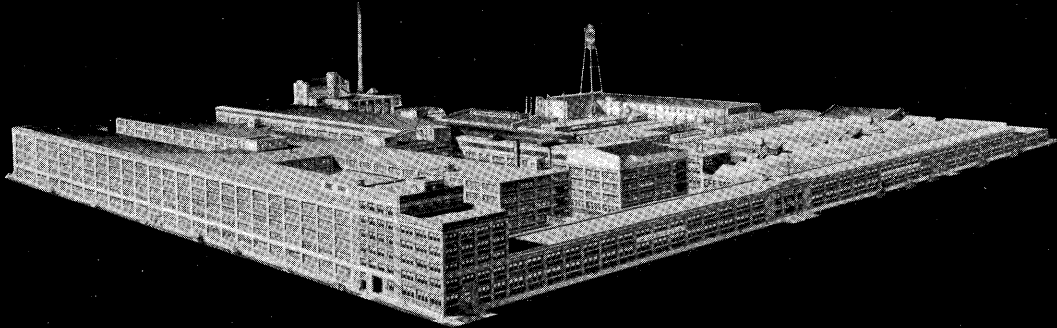
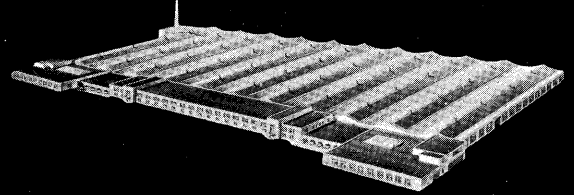
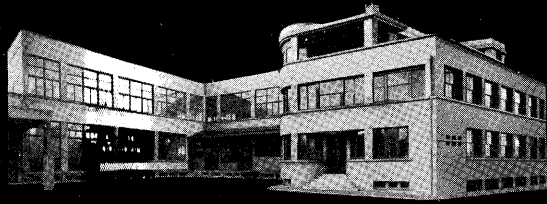
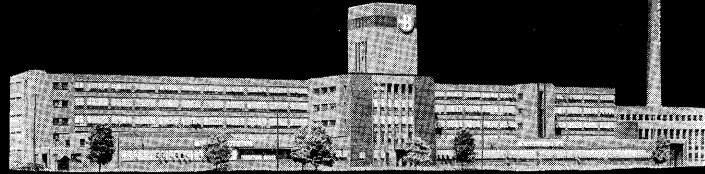
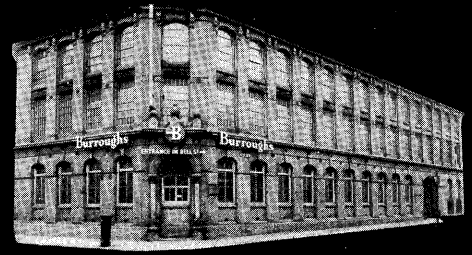


# Burroughs

Burroughs is a world-wide organization represented by company owned branches in every major market.

These branches are staffed by factory trained sales and service personnel with years of practical experience in solving accounting and other record keeping problems.

This vast experience is available to you at no cost.





**Burroughs**

Burroughs Corporation, Detroit 32, Michigan  
Burroughs Adding Machine of Canada, Limited, Windsor, Ontario  
**OFFICES IN PRINCIPAL CITIES**