# INTERNATIONAL BUSINESS MACHINES



# INTERNATIONAL BUSINESS MACHINES



#### INTERNATIONAL BUSINESS MACHINES CORPORATION

World Headquarters Building 590 MADISON AVENUE, NEW YORK, N. Y.



#### WORLD HEADQUARTERS BUILDING

**International Business Machines Corporation** 

590 Madison Avenue, New York, N. Y.

#### **FOREWORD**

of the great program of modernization. Scientists, engineers, research workers, designers, builders, and manufacturers are constantly endeavoring to produce in their respective fields means of improving conditions, of making human endeavor more efficient and life more pleasant. Management is discarding outmoded equipments and installing up-to-date devices and procedures to protect itself from the danger of loss that lurks in the use of the obsolete.

When considering your own progress-program consider the applications of International Business Machines to your needs. The *International* modernizing process benefits many procedures—accounting, bookkeeping, statistical, time-recording, property-protecting, and document-writing being among them.

International Business Machines provide a modern efficiency that builds profits and guards against profit-leaks. That is the basis on which they are installed. How well they succeed is demonstrated by their constantly expanding use in all fields of business throughout the world.

There are hundreds of models of many different types to choose from, so that you can have exactly the machine your needs require. Our representatives will be glad to describe to you in detail the application of any type of equipment in which you may be interested.

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#### **QUICK FACTS**

#### ABOUT INTERNATIONAL BUSINESS MACHINES

#### What They Are:

Electric Punched Card Accounting Machines
Time Recorders and Electric Time Systems
Time Signaling Systems
Sound Distribution Systems
Fire Alarm Systems
Watchman's Systems
Recording Door Locks

Proof Machines
Ticketographs for Production and Payroll Coupons
Electric Test Scoring Machines
Equipment for Making
Graphic Analyses
Electromatic — All-Electric

Writing Machines

Where Made: In the United States, Canada, Germany, France,

Where Used: In 79 countries of the world.

Italy, England, and Brazil.

Used by: Business and financial organizations of every size and kind, institutions, and governments.

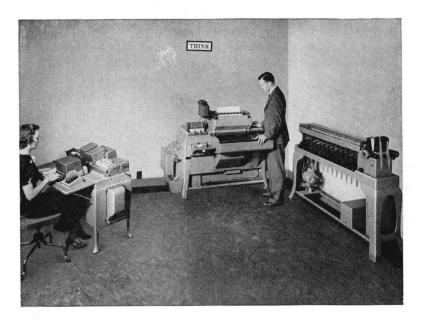
Backed by: International Business Machines Corporation, pioneer manufacturer and distributor of Electric Tabulating Machines and Time Recorders. In business since 1889. Capital, over \$55,000,000.

Number of Factories: Ten: 3 in the United States, 1 in Canada, 2 in Germany, 1 in France, 1 in Italy, 1 in England, and 1 in Rio de Janeiro, Brazil (See pages 40 and 41).

Number of Field Representatives: Approximately 3,500 throughout the world.

Location of Offices and Service Stations: In principal cities of the world.

### International Electric Punched Card Accounting Machines



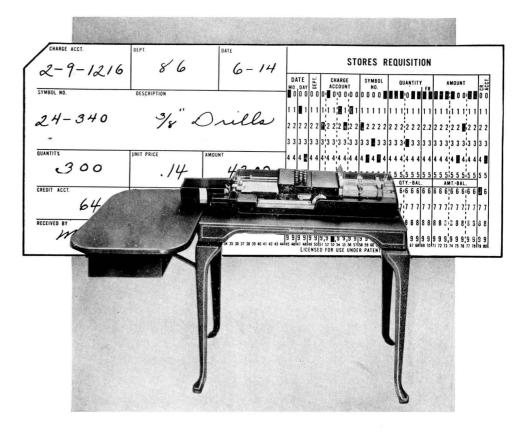
In A few words—what do International Electric Punched Card Accounting Machines accomplish?

... Under operator's control, they automatically handle accounting and statistical data in order to supply management with the pertinent and timely figure-facts needed to control business most profitably. And they operate at a speed which substantially reduces the time required in preparing complete reports.

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#### The Card

The basic unit of the method is the Electric Accounting Machine Card which is made to contain all data pertinent to a given subject. Holes punched at various points on the card represent the information to be handled and actuate electric machines in subsequent proceedings. Say that five dollars are represented by perforations. If that amount is to be added, subtracted, multiplied, or put on a bill at the end of the month, each process is automatically performed.



### Electric Card Punching Machine

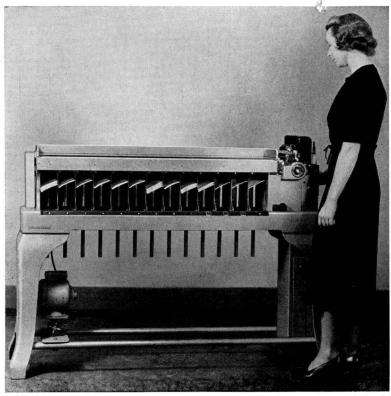
THE Electric Card Punching Machine is the device that enters the original accounting information statistical and other descriptive data on the cards in the form of punched holes.



#### **Punched Hole Verifier**

THE Verifier is used as a check on the accuracy of the holes made in cards by the Electric Card Punching Machine—to see that the proper numbers have been punched under the proper headings.

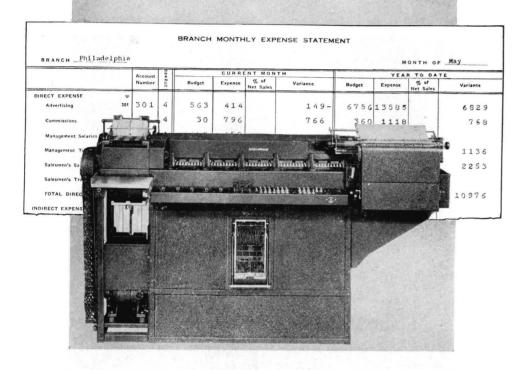
If the operator of the Electric Card Punching Machine makes an error in transmitting the data from the original source to the tabulating card, the Verifier detects the mistake so that a correct card can be made.



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### Electric Punched Card Sorting Machine

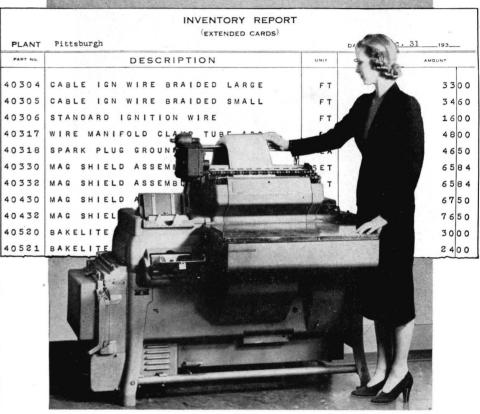
B EFORE the punched cards can be used by other machines to produce finished printed reports, they must be sorted into desired classifications (such as "Sales by salesmen", "Sales by products", "Sales by areas", etc.), and placed into proper numerical sequence. The Electric Punched Card Sorting Machine does this automatically.



### Electric Punched Card Accounting Machine

The cards, having been punched and sorted, are now ready for their real work, which is: to actuate the machines that automatically produce the desired complete, printed reports.

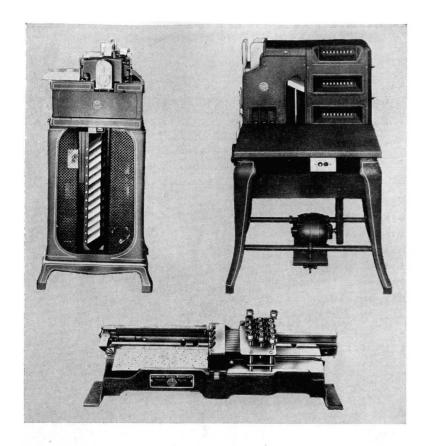
The numerical type of Electric Punched Card Accounting Machine, shown above, is a multiple subtracting, adding, classifying and printing unit. It prints classifications, lists details, computes and prints totals and net balances.



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### Electric Punched Card Accounting Machine

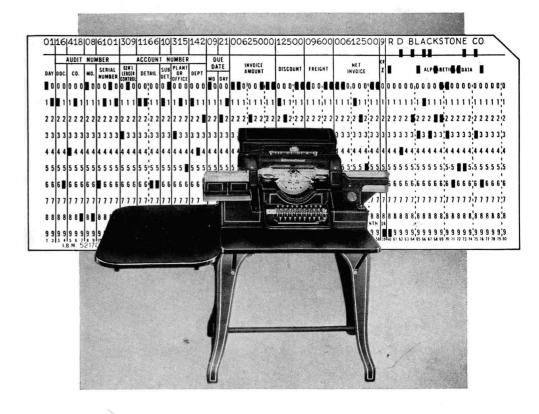
Besides doing everything that the machine just described can accomplish—subtract, add, classify, print numerals, provide net balances and totals—this unit also prints names, addresses and alphabetic descriptions on the finished report. It produces completed documents like the one reproduced above.



## Electric Punched Card Accounting Machines [MODEL 50]

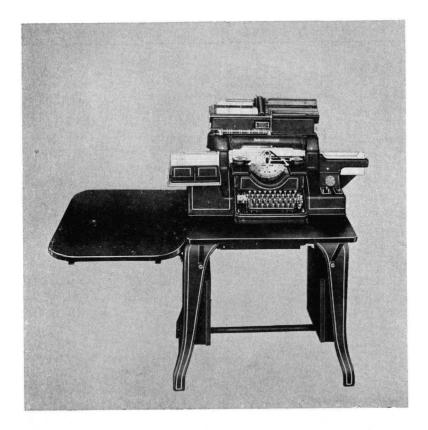
The accounting and statistical requirements of some companies do not require the greater speed and facility of standard International equipment.

To make it possible for these companies to enjoy the advantages of the punched card method, the set of machines shown above is available. This set consists of a Card Punching Machine, an Electric Punched Card Sorting Machine, and an Electric Punched Card Accounting Machine.



### Electric Card Punching Machine

The International Business Machine illustrated on this page not only punches information into the cards, but, at the same time, it also prints the alphabetical and numerical characters representing the punched holes along the top edge of the card so that the punched holes can be easily read.



## Electric Card Punching Machine with Alphabetic Printing and Duplicating Features

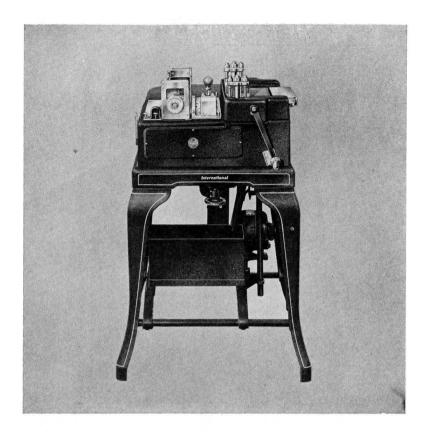
INE the punch on the preceding page, the above equipment prints across the top of a card information that is simultaneously punched into the body of the card. In addition, this punch has a duplicating feature which automatically records on individual cards, data that is common to a group of cards.



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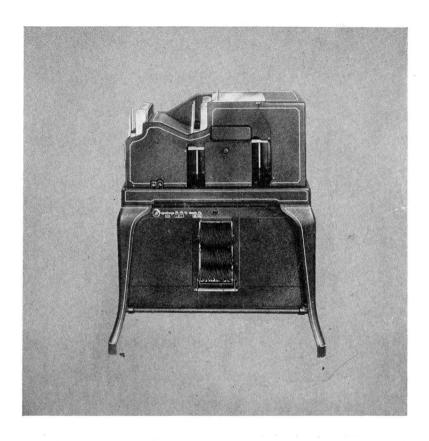
### Electric Card Punching Machine with Duplicating Feature

This unit punches original information into cards and automatically duplicates data common to a number of cards.



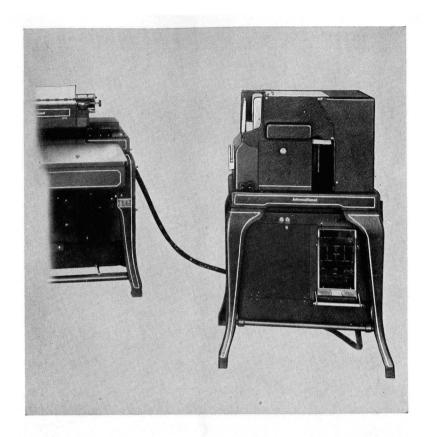
#### Electric Card Duplicating-Numbering Punch

THE Electric Card Duplicating-Numbering Punch is used when it is necessary to punch many cards in identically the same manner, whether wholly or in part.



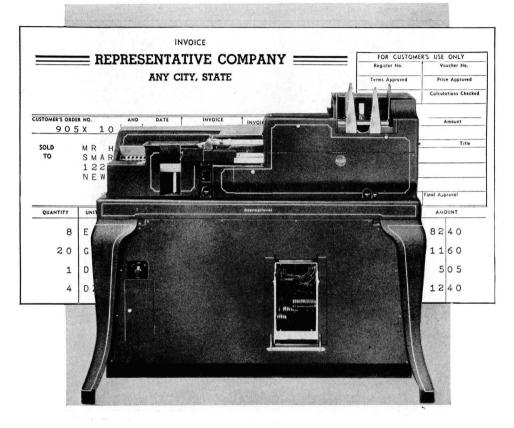
#### Electric Card Reproducing Punch

This machine reproduces in one set of cards the information punched in another set. All or any portion of either numerical or alphabetical data punched in a card may be reproduced in another card in any desired sequence.



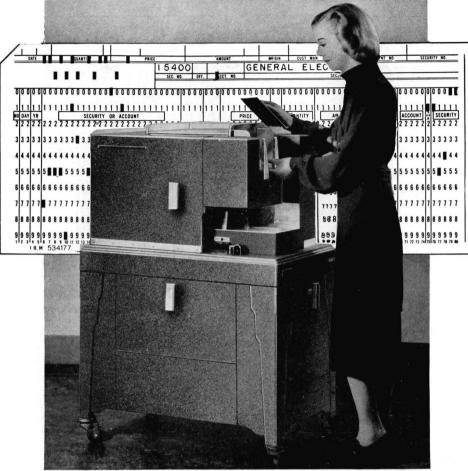
#### **Electric Card Summary Punch**

THE Electric Card Summary Punch records classifications and totals received by electrical impulse from the accounting machine. It also punches common information into the cards and can perform functions similar to those of the punch unit of the Electric Card Reproducing Punch.



### Electric Multiplying and Computing Punch

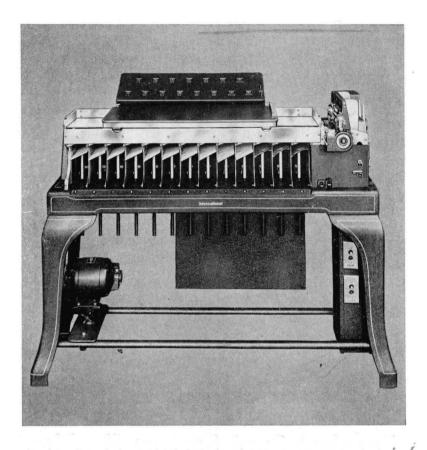
The Electric Multiplying and Computing Punch multiplies any two numbers punched in Electric Accounting Machine cards, adjusts the number to the nearest whole number, records the product on the card from which the factors were taken and accumulates totals. It can also cross-add and cross-subtract while multiplying, under which condition it punches the total of the cross-addition or the net total.



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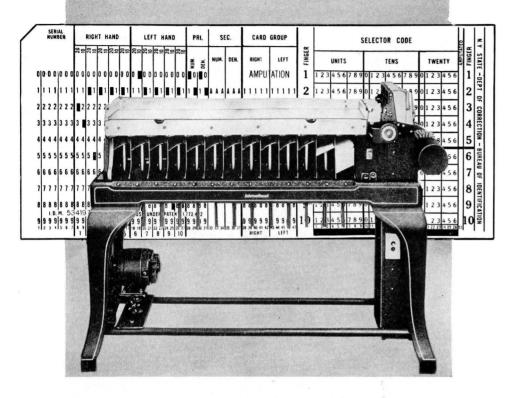
#### Electric Punched Card Interpreter

THE Punched Card Interpreter translates punched holes representing alphabetical and numerical characters and prints the meaning of the coded figures along the edge of the cards—for greater ease of reading in checking, filing, selection and reference operations.



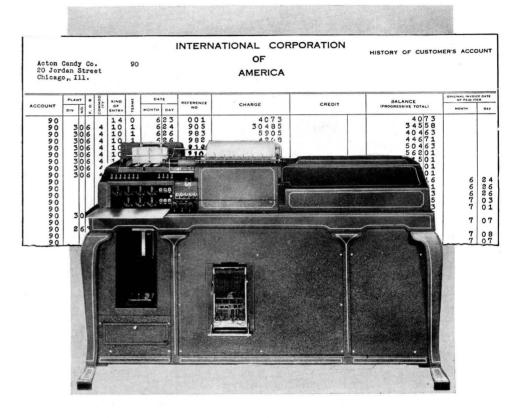
### Electric Punched Card Counting and Sorting Machine

The Electric Punched Card Counting and Sorting Machine provides a rapid means of counting and classifying punched cards simultaneously. It also operates as a regular sorter without counting or as a counting device without sorting. Visible dials permit the figures on the counters to be easily read and transcribed by the operator.



# Electric Punched Card Sorting Machine (With Searching Feature)

This automatic Card Sorting Machine can search a file of punched cards representing as many as 10 major classifications, subdivided into as many as 26 minor ones. The machine selects all major groups simultaneously and under each of them is set to select not only a specific count but also the border counts—those slightly higher or slightly lower. It can also operate as a standard horizontal sorter.



### Electric Punched Card Accounting Machine

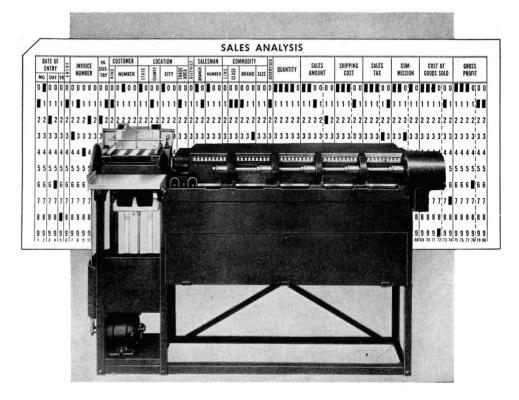
ERE is a combined adding, subtracting and printing machine which prints tabulations like the above report. It lists details from individual cards, prints classifications, computes and prints totals, grand totals and net balances.



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### Electric Punched Card Collating Machine

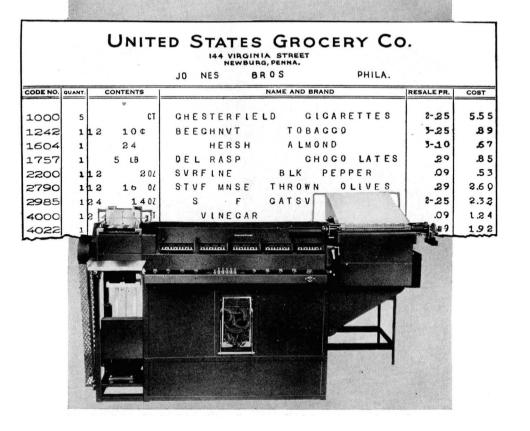
The Collating Machine simultaneously feeds and compares two sets of cards in order to merge or match them. Some of its uses in the punched card method are to file current transactions with previous transactions and old balances; pull debits by means of credits; combine master or name-and-address cards with detail cards and refile the former; substitute new master or name-and-address cards for those made obsolete.



### Electric Punched Card Accounting Machine

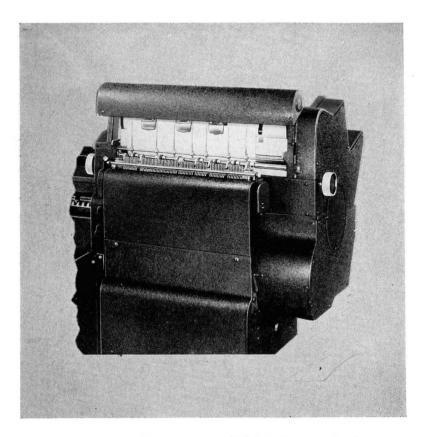
(Non-Printing)

This Electric Punched Card Accounting Machine automatically provides totals from punched cards. It determines both sub- and grand totals, and indicates proper classifications. These accumulations and classifications are shown on the reading dials and may be transcribed to report forms by the operator.



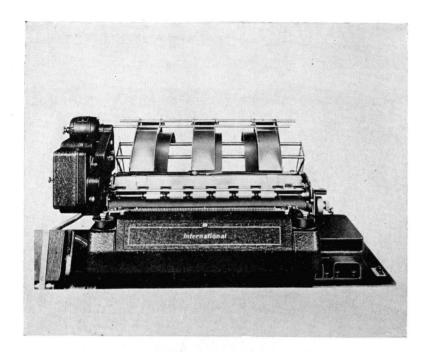
#### Electric Punched Card Billing Machine

This machine prints alphabetical commodity descriptions in legible, condensed forms. It is applicable to billing where a pre-punched card system is used for control of inventory and centralized billing. It offers high-speed listing, single line billing and a 34-column type section for printing descriptions.



#### Automatic Bill Feed Carriage

The Automatic Bill Feed automatically feeds public utility bills, insurance premium notices, bank checks, etc., into the printing mechanism of an Electric Punched Card Accounting Machine, where proper information is automatically printed on them. The machine accommodates forms ranging from post card size to those 51/2 inches by 18 inches, on which the information can be printed in any desired position.



#### **Automatic Carriage**

This motor driven device is an extremely valuable aid in the automatic handling of forms by either a numerical or alphabetical Electric Punched Card Accounting Machine. It feeds and spaces continuous forms, spaces single sheets, can be set to eject automatically from a predetermined last line of a continuous form to a predetermined first line of the next form. It may also be set to eject from form to form as governed by control changes in the accounting machine.



#### **Record Posting Machine**

The International Record Posting Machine is a new piece of office equipment designed to facilitate the posting of ledger cards and other individual sheets. Under control of the operator, this machine rapidly transfers entire lines of printed data, one at a time, from the master sheet to individual sheets. By means of a Record Posting Machine journals, payroll registers and other reports prepared on master sheets can be swiftly posted to individual ledgers.



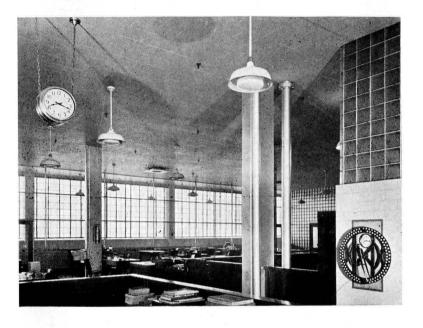
#### International Business Machines Service Bureau

This Bureau will furnish detailed accounting and statistical information—in minimum time. The International Business Machines Service Bureau will prepare designated accounting and statistical records concerning Orders, Sales, Production, Expense, Payroll and other important functions of your business. This information will be available promptly after the close of any period.

With the International Business Machines Service Bureau you can depend on accuracy, speed and strict confidence in the handling of all data.

International Business Machines Service Bureaus are equipped with International Electric Punched Card Accounting Machines and are located in principal cities. They will cooperate with you on a time or complete-job basis.

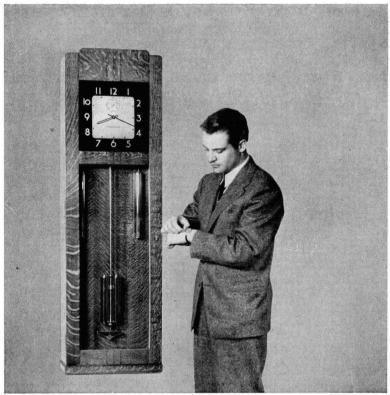
### International Electric Time Recording Indicating and Signaling Systems



It is the purpose of International Time Recorders and Electric Time Systems to provide every kind of industrial organization, business and institution with unquestionably accurate time indicating, recording and signaling methods.

Such equipment is designed to promote efficiency and economy of operation by automatically maintaining a single time standard; and by providing management with accurate printed information about the amounts of time purchased . . . how much, where and when it is used.

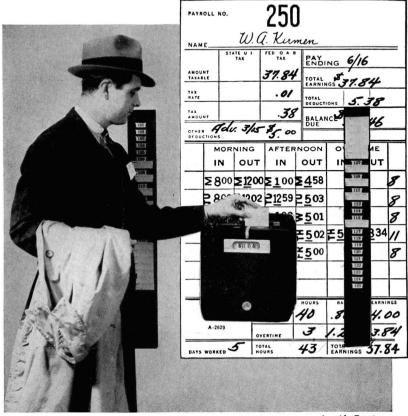
On the following pages are explained some of the specific results that may be obtained from applications of the various International timing devices and systems.



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#### The Master Time Control

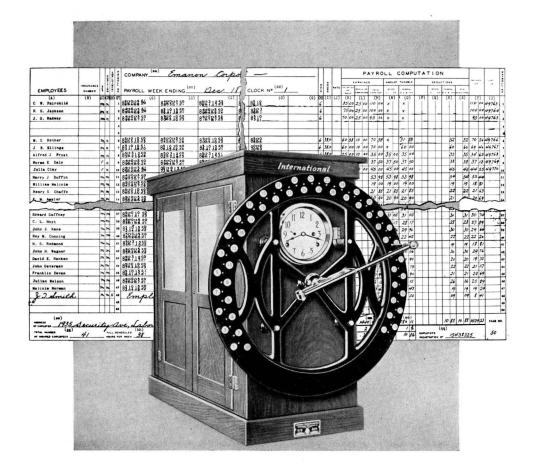
The "chief executive" of an International Electric Time System is the Master Time Control. Upon this device rests the responsibility for keeping an accurate and uniform time standard for an entire organization throughout a building or group of buildings. It serves not only as the source of accurate time but automatically compels every time unit in the system to maintain it. Once every hour, each clock or recorder is compelled to compare itself with system time and to make whatever corrections may be necessary.



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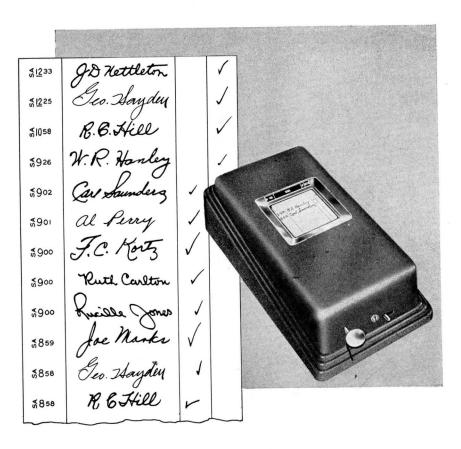
#### All-Electric Attendance Time Recorders

A val and departure times of each employee for an entire pay period is obtained with this completely automatic attendance recorder. Management gets a thoroughly reliable basis for payroll compilations and a convenient, economical method for meeting the various social and labor law accounting requirements.



#### **Automatic Payroll Machines**

The distinguishing feature of these attendance recorders is the record sheet which provides space not only for the in-and-out records of all employees for an entire pay period, but also for all the necessary payroll extensions, deductions and other compilations. Each completed sheet becomes a payroll ledger page, thus reducing the possibility of errors through transcription and making it easier to comply with Social Security, Income Tax, and Wage Hour Law accounting requirements.



#### **Autograph Time Register**

Wherever positive identification of employees or other persons entering and leaving the premises is essential, these attendance recorders are ideal. Personal signatures and accurate, printed time entries are combined on a record that is of invaluable aid to management in supervising the activities of messengers and truckmen, as well as the entries to and departures from bank vaults, supply rooms, narcotic stock rooms and other similar places.



#### **Job Time Recorders**

The purpose of International Job Time Recorders is to provide accurate printed records that tell exactly when production jobs and operations are begun and finished.

Printed International job time records help the manufacturer or the producer to obtain maximum profits from his business. They provide a reliable way to determine exactly the labor cost of every finished product or service.

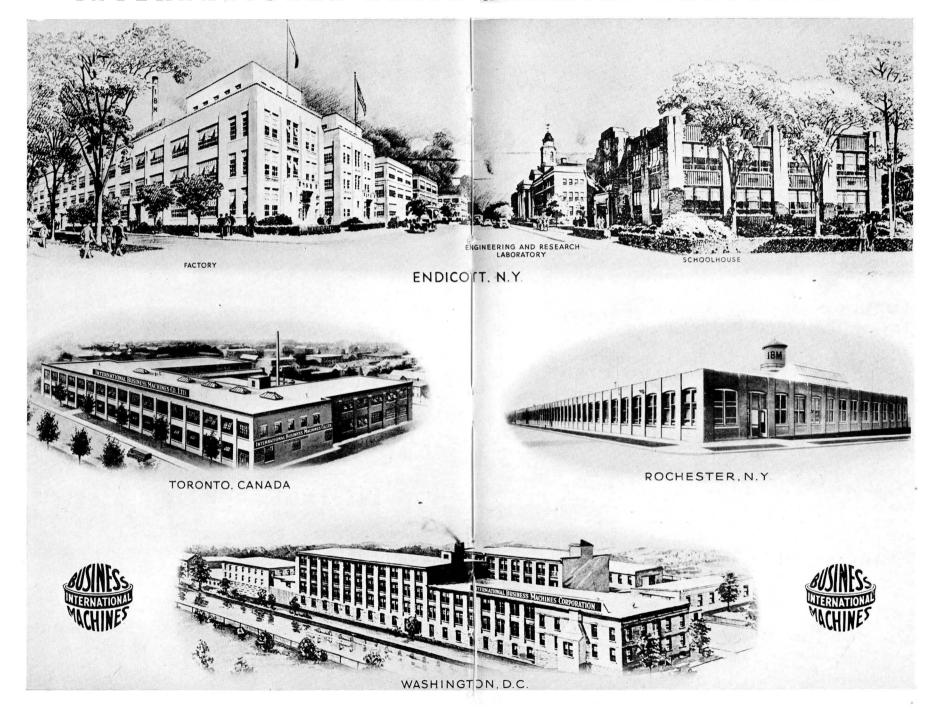


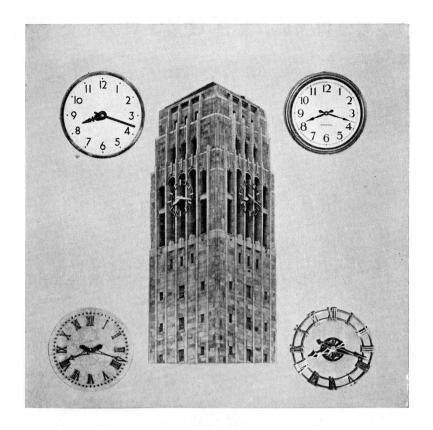
#### **International Time Stamps**

INTERNATIONAL Insto, Electroprint, and Printime Stamps are invaluable instruments of protection wherever service is a responsibility. Their legible, accurate time and identification records printed on letters, telegrams, orders, and other important business documents insure prompt handling.

By placing responsibility for delays, International Time Stamps protect against them.

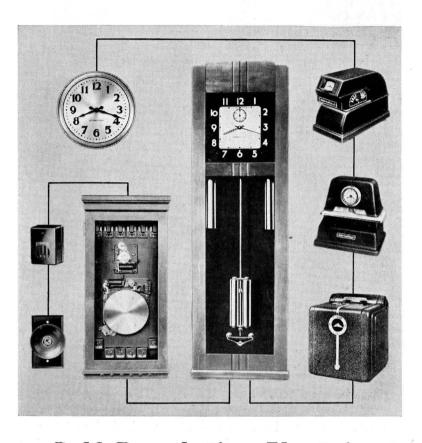
#### INTERNATIONAL NORTH AMERICAN FACTORIES





#### Secondary Clocks

International Secondary Clocks are scientifically designed to furnish uniform distribution of accurate time throughout an entire organization... without the annoyance of winding, setting and checking. They keep every one, from patrons to employees, constantly informed as to the exact minute of the day and thus are the means of maintaining adherence to established operating schedules.



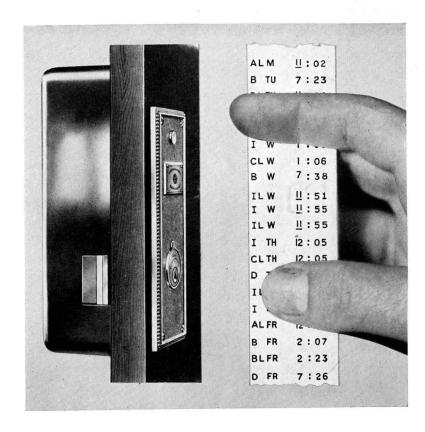
#### Self-Regulating Electric Time Systems

INTERNATIONAL Self-Regulating Electric Time Systems provide a dependable means for coordinating activities in all kinds of business, industrial and institutional organizations. Any required number of widely distributed time recorders, secondary clocks and time signals are automatically compelled to operate in unison and thus to aid in establishing a well-knit, smoothly operating organization.



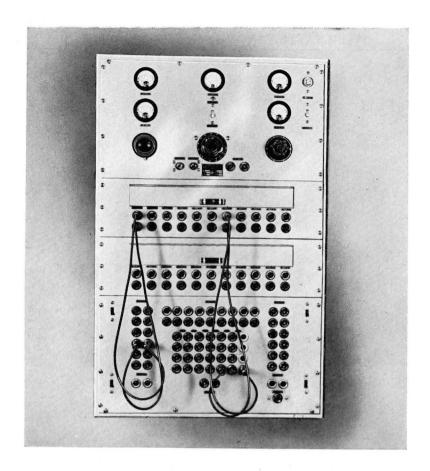
#### Fire Alarm Systems

INTERNATIONAL Fire Alarm Equipment is designed to provide dependable protection to lives and property against injury by fire. By means of pre-arranged signals that are set into automatic operation by breaking the glass or pulling the lever of an alarm station all occupants in the protected area are warned of the existence of a fire hazard. An entire building may thus be evacuated systematically and with the least possible delay.



#### Recordolock

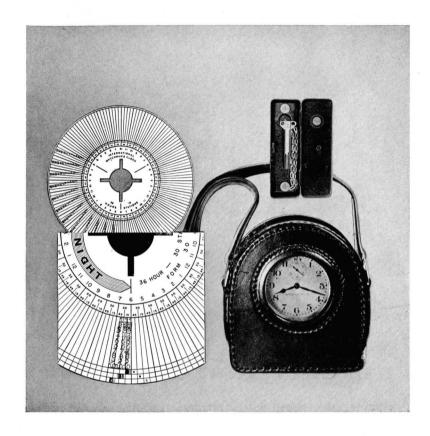
RECORDOLOCK is a recording doorlock that prints a record every time a key is turned . . . showing exactly when the door was locked and unlocked, by whom and whether from inside or outside. This valuable supervisory information, printed on a convenient paper tape, is immediately available to the owner or manager. It employs no codes or secret symbols and no special interpretation is necessary.



#### **Laboratory Experimental Panels**

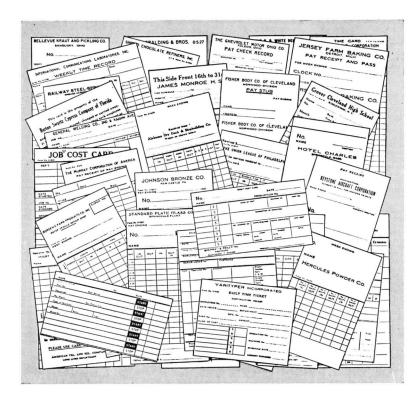
This equipment is designed for use in the science departments of high schools and colleges and commercial laboratories where electricity of different characteristics and voltages is needed for experimental purposes. Many different experiments may be handled simultaneously regardless of the kind of current or voltage required.

Special safety features are employed which protect the operator against accidental electrical shocks.



#### Watchman's Clock System

INTERNATIONAL Watchman's Clock Systems serve to enforce systematic and continuous patrols of protected property during non-working hours. Records of visits to established stations indicate whether or not rounds have been made in accordance with watch schedules. Insurance rates are less wherever this kind of protection is provided against property damage and loss.



#### **Card Printing Facilities**

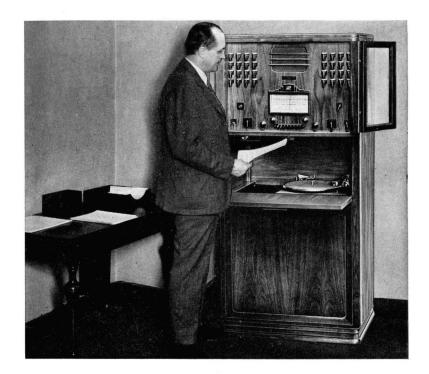
International can meet the record-form needs of practically any organization by reason of its large well-equipped printing plant at Endicott, N. Y. Hundreds of different kinds of cost cards, attendance time cards, production cards, job tickets and dial sheets are available as standard forms and the plant is prepared to set up and print any special form or variation of a standard form to suit individual or unusual requirements.



#### **Athletic Event Timers**

THESE are devices designed to give spectators an accurate account of the progress of games and sport events. They display the number of minutes played and designate the number of the period so that any one in the audience can determine exactly the status of the game.

Various models of this machine are provided to handle a wide variety of games and for use either indoors or out. They are ordinarily built to conform with individual requirements for size and application.



### Central Control Sound Distribution Systems

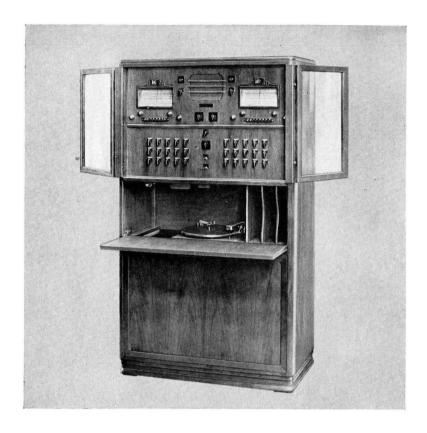
International Central Control Sound Distribution Systems provide for the amplification and distribution of radio, microphone and phonograph programs in a wide variety of industrial, institutional and amusement organizations. They are applicable to the administrative, communication and entertainment needs of business, commercial recreation, religion, education, medicine and of all other organizations where people are assembled in groups to be entertained, instructed, or given information.



#### **Central Control Cabinets**

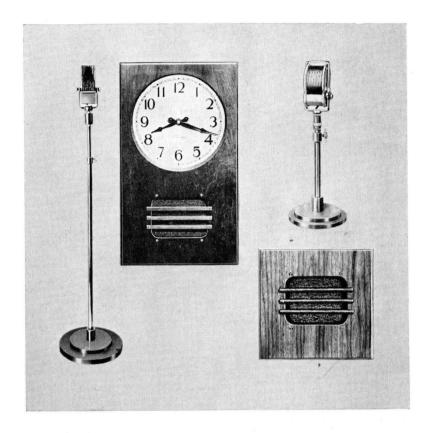
A RADIO receiver, a microphone, and a phonograph turntable conveniently arranged in one cabinet together with the necessary control switches, provide an entire organization or selected part of an organization within a building with a wide variety of radio, music, and speech programs. Such an instrument establishes direct, personal contact with executive staffs and serves in countless ways to save administrative time and clerical effort.

Page Fifty-one



#### Schoolmaster System

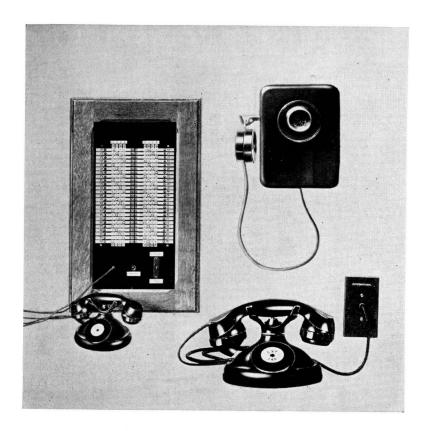
The International Schoolmaster is a sound control instrument specially designed to assist in the administration of school routines. In addition to the simultaneous or selected distribution of radio, music and speech programs to supplement regular instruction, the Schoolmaster provides also for two-way conversation between teachers and supervisors, and the automatic sounding of signals to indicate scheduled classroom assemblies and dismissals.



#### **Sound Reproducers and Microphones**

International Sound Reproducers have been scientifically designed to preserve as nearly as possible the quality of original sound, so that every one within an organization or group may have front-row hearing advantages.

International Microphones of many types serve to augment the central control unit and make it possible for programs to originate from any point within a building.



#### **Interior Telephone Systems**

INTERNATIONAL Telephone Equipment applies strictly and exclusively to industrial and institutional organizations as a means of purely local administration, management or convenience. It is an automatic administrative aid that permits rapid and efficient transmission of information between individuals and departments within an organization. Such equipment saves valuable time and eliminates unnecessary effort.

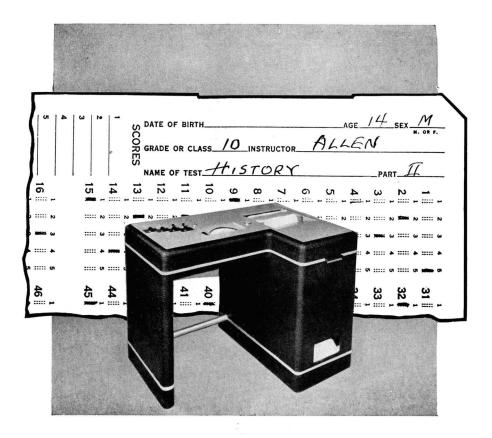
### International Electric Test Scoring Machines for Rating Examinations



Arnold Genthe

The Electric Test Scoring Machine is a mechanical deviced used for rating examinations. It is designed specifically for application in educational, business and governmental institutions where tests of the objective type are used in measuring academic achievement, mental traits, aptitudes, personality, vocational interests, and other areas necessary for the guidance or placement of students or personnel.

This scoring method makes it practical to administer tests in far greater volume than would be economically and physically possible with the usual manual method.



#### **Electric Test Scoring Machine** For Rating Examinations

M ANY economies of both time and effort are effected by the International Electric Test Scoring Machine when applied in student and personnel testing programs. It relieves examiners and teachers of a most burdensome, monotonous task and thus permits them to spend more time in really productive work. By reason of the larger amount of testing that can be done by this method, guidance and placement may be based on a better and broader knowledge of individual abilities and characteristics.

#### **Proof Machine**



THE International Proof Machine is used by banks to Il list, sort, prove, and endorse checks. Because these four operations proceed simultaneously, only one handling of each batch of checks is necessary.

Checks are listed on a control tape in the same sequence as on deposit slips and totalled for comparison with depositors' totals. Errors are so localized that a constant balance is maintained and no time is lost in searching for differences. The machine also provides totalled listings for each of the sorting classifications, shows the number of checks in each deposit or group, and indicates the grand total.



#### **Proof Machine**

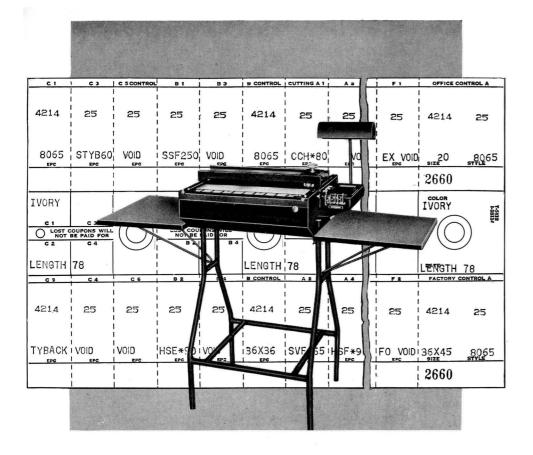
THE Proof Machine permits speedier, more efficient handling of bank checks and other business documents which require sorting, listing, proving, and endorsing. Considerable time is saved because these four operations are done simultaneously . . . resulting in prompt, accurate service for customers. Automatic proving eliminates the necessity for tedious, time-wasting checking and cross-checking to locate errors.

### International Ticketograph for Production and Payroll Coupons



TICKETOGRAPHS are wage schedule printing devices that save time and prevent payroll losses in manufacturing organizations where finished products require many different processing operations . . . where wage payments are made on the basis of rates established for kind and quantity of work performed.

When all wage rates pertaining to a single production job are printed simultaneously by the Ticketograph on a coupon type or sectional work-ticket, in proper sequence together with other production control information, management is enabled to maintain an accurate control of wage payments with a minimum amount of checking and verification.



### Ticketograph (Style 842)

A COMPLETE work-ticket, with any required number of rates and prices properly distributed according to type of work is printed with one operation of the Ticketograph. Predetermined accuracy of rates and uniform legibility of printed, unalterable figures makes this machine invaluable as a dependable means of maintaining payroll and production control.

#### International Electromatic— All-Electric Writing Machine



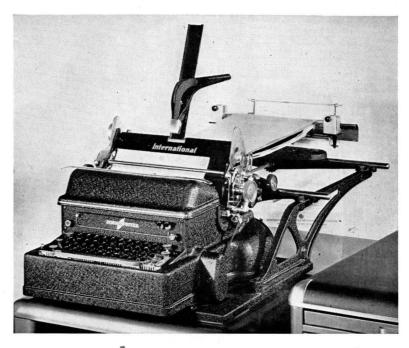
ELECTROMATIC Writing Machines are all-electric. Carriage return, front spacer, back spacer, type shift, line spacer and all type bars are controlled from the keyboard by a feather-light touch. Operators develop a smooth, swift typing rhythm which reduces fatigue and increases typing production as much as fifty per cent. The patented power stroke adjustment of the Electromatic All-Electric Writing Machine assures ideal printing results. It prevents excessive wear and tear on stationery and carbon paper, thus effecting a worthwhile saving.

The Electromatic All-Electric Writing Machines, described on the following pages, are made for every office need.



#### Electromatic— Standard All-Electric Writing Machine

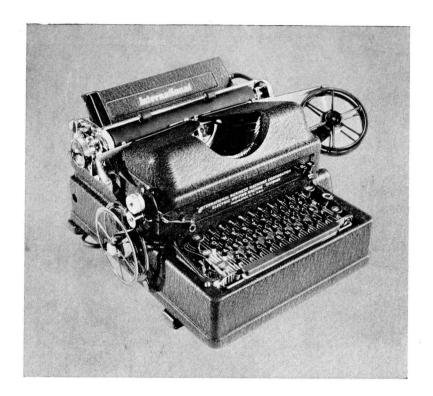
EVERY type character on this all-electric machine receives the correct amount of pressure for ideal printing. Capitals do not print too lightly. Periods do not break through the paper. And, when it comes to carbon copies, this machine can be adjusted to print 20 distinct copies simultaneously. The ease of operation of this machine saves money by enabling an operator to do more work and better work in less time. Cleancut stencils may also be written at electric typing speed.



#### Electromatic— All-Electric Forms Writing Machine

The Electromatic All-Electric Forms Writing Machine brings the advantages of electric operation to the preparation of bills, orders and other routine business correspondence requiring loose or continuous forms. The forms carrier is light in weight and sturdy in construction and designed to carry all types of continuous forms. As many as twenty carbon copies can be made by a feather-light touch on the keyboard of this machine.

A touch of the left thumb releases and operates the special platen-lifting device, removing all resistance between forms when the carbons are shifted.



#### Electromatic— All-Electric Carbon Ribbon Writing Machine

This machine produces distinct, uniform type impressions for photographic reproduction.

The carbon paper ribbon moves forward a full space after every impression in order that each type character may strike on a clean carbonized surface. The carbon paper can be used twice—once through on the lower half and then again on the upper half.

This machine can also be operated with a fabric ribbon, for general work, without removing the carbon paper ribbon attachment.

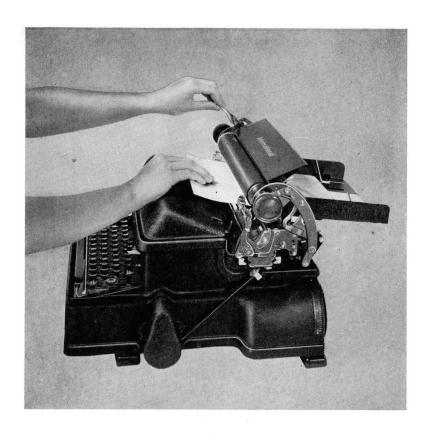


#### Electromatic— All-Electric Hektowriter

This machine is built for the specific purpose of preparing reverse "masters" for liquid duplicating machines.

The economy of this machine is one of its most important advantages. There is no waste of carbon paper surface due to the fact that the complete area of the ribbon is used. It also saves valuable time; no juggling or shifting are required to place carbon paper and stationery in correct position.

The Electric Hektowriter can also be used for making "masters" for the gelatin hectograph process.



#### Electromatic— Front-Feed Writing Machine

This machine saves time in placing paper and carbons in position. It also assures the correct alignment of every sheet. All that is necessary to do is to place paper and carbonized sheets on the tray and snap down the platen. Further straightening and adjusting are unnecessary.

This quick positioning advantage also makes it ideal for tags and labels of various types and—as a stencil writer, this machine is unsurpassed.

