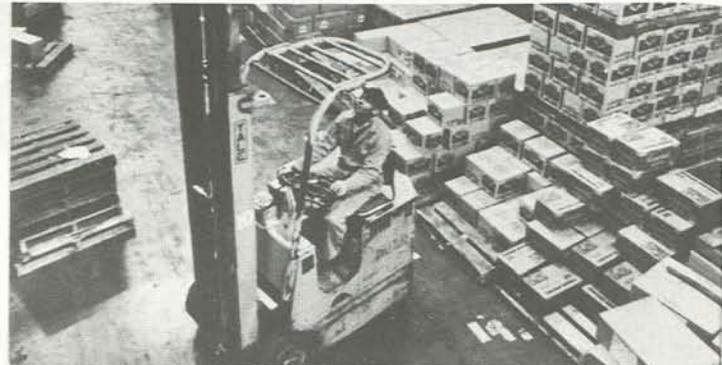
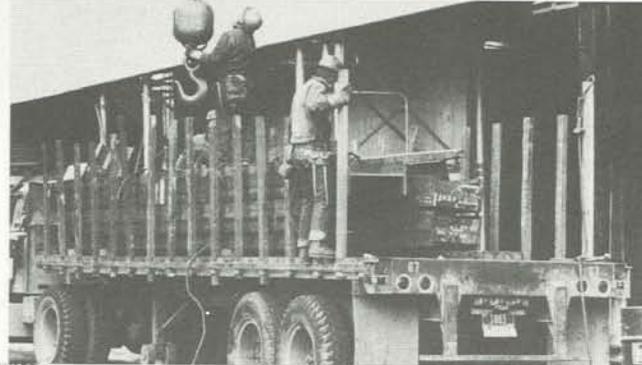


IBM 1440

New low cost
Data Processing
System



A management tool, a profit tool for your business



IBM announces new low cost 1440—problem solver for all types of businesses

It's an accounting system, and a business information system. And its cost makes it practical and profitable for smaller volume businesses. In fact, IBM's new 1440 Data Processing System is specifically designed to meet the needs, and solve the problems, of smaller volume businesses.

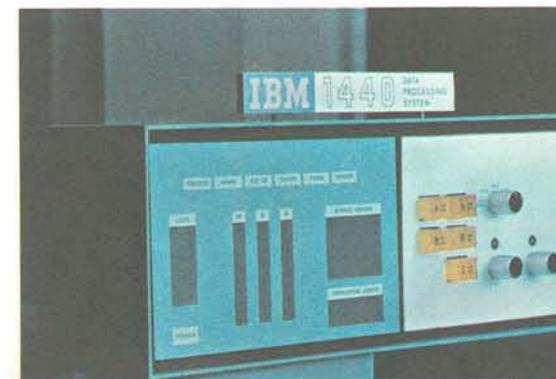
Whether you're producing parts, forwarding freight, lending money or caring for patients, the 1440 can help make your job easier.

The 1440 handles payrolls, accounts receivable, inventory, all your day-to-day business operations. It keeps records always up-to-date, always immediately available, always useful.

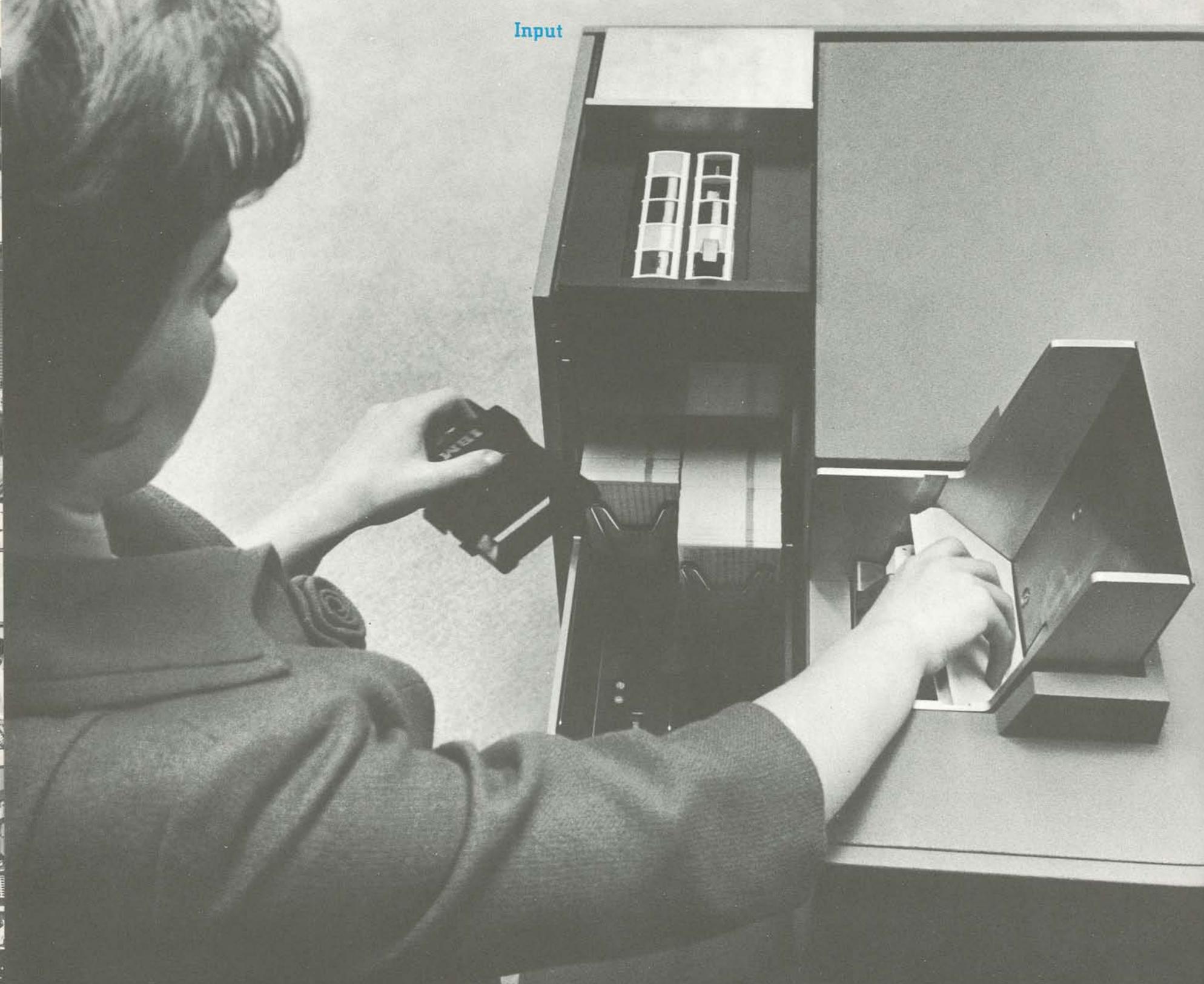
But even more important, the 1440 gives you the up-to-the-minute control and supervision you need for your business. With the 1440 you get the kind of business information you need, on your desk when you need it, in a form you can use. These reports, schedules and analyses eliminate much of the guess work in day-to-day business decisions—those decisions that spell success or failure, profit or loss.

And the 1440 does all this at a price smaller volume business can easily afford.

The 1440 provides the tools for modern business management. When you use the 1440 as a management tool, you make it a profit tool as well.



Input



What's the 1440 like?

Basically like other, larger IBM Systems.

But the 1440 features several unique technical improvements—such as its new method of storing and handling business data. This unique concept makes the 1440 an even better management tool for smaller businesses.

Simply put, the 1440 receives business data (input), processes it, stores it for easy access, and produces output—such as invoices, paychecks, business reports and analyses. Here's how the 1440 does all this:

Input: Telling the system what to do (“programming the computer”) is the first step. Instructions on what to do (prepare analyses, create reports, compute and print payrolls) are read into the 1440 on punched cards.

These instructions, called a “stored program,” are stored in the system. Now the system is ready to go to work, as soon as business data is fed into it.

When you're ready for another job, you feed another set of instructions into the system.

Processing: Following the stored program's instructions, the 1440 goes to work on the incoming business data, performing all the necessary calculations, comparisons and other operations required to complete the job.

Storage: In the 1440, business data is magnetically stored on the system's unique new disk packs. Since any number of these removable disk packs may be used, you have virtually unlimited storage capacity for all your business records. Disk packs are easily attached and removed for different jobs.

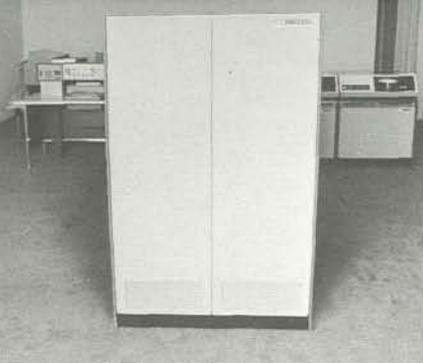
Payroll records, inventory status, sales and income reports, production line schedules and operations, all the other data a business needs and uses are stored in the 1440—ready for quick access. This means that any business record you need is always immediately available—for inquiry, updating, and preparing reports.

Output: The 1440's output can take many forms. The most common is printed documents, such as invoices, payroll checks, inventory status, production reports, sales analyses and manufacturing schedules.

A valuable management tool, *exception reporting*, is another form of output. Any unusual business activity—material shortages, over-extension of credit, scheduling conflicts—can be reported by the system immediately. With such information immediately available, management can take prompt, effective action.

Punched cards are still another form of the 1440's output. These punched cards can be used for future processing in the 1440.

Finally, 1440 output can be in the form of updated records stored in the disk packs.



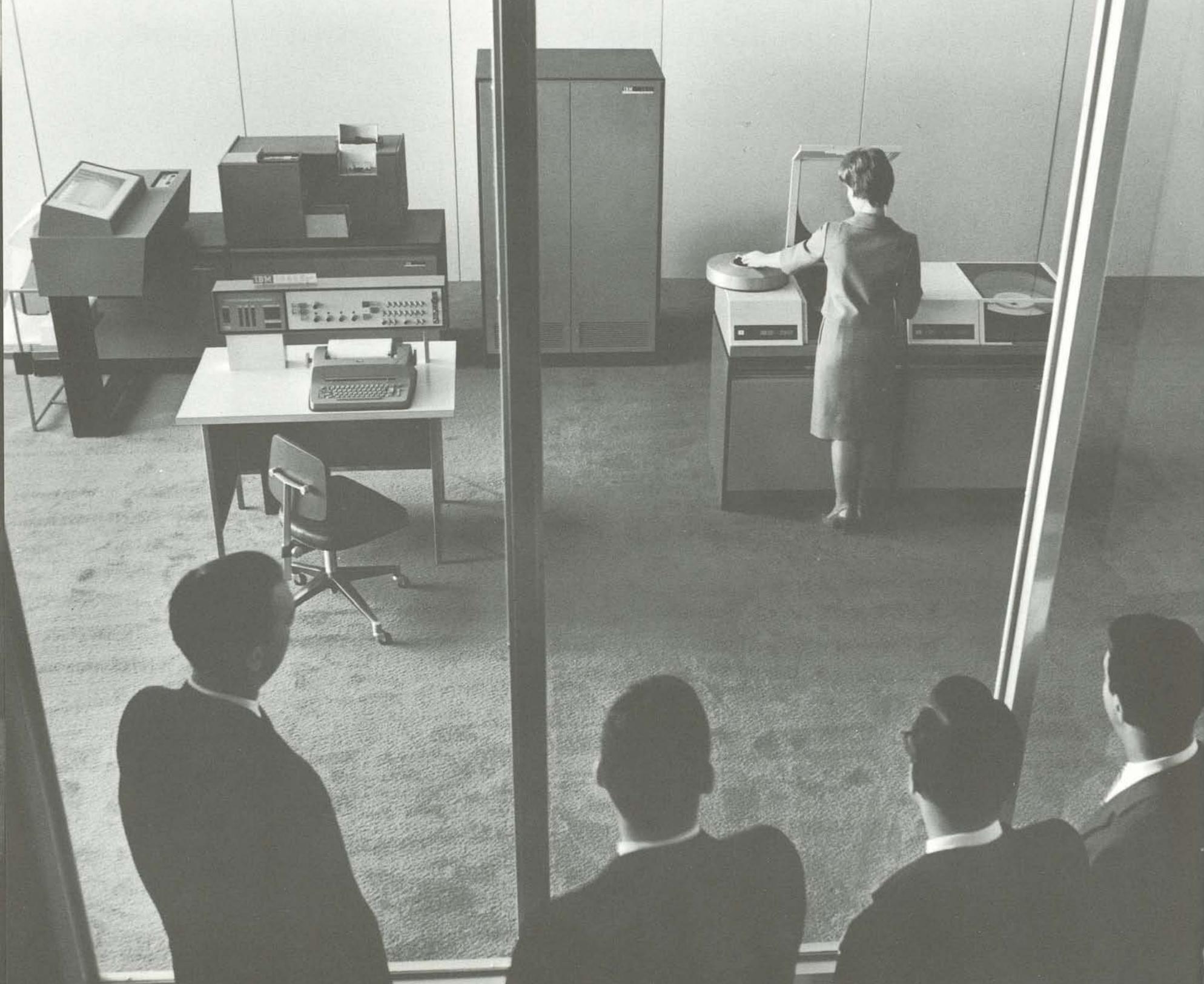
Processing



Storage



Output



The 1440 Data Processing System involves much more than machines. People must install these machines, tell them what to do, and monitor them for best results.

To help your people get the most from a 1440 system in the shortest possible time, IBM provides a wide range of important services—services that not only teach your employees how to operate the system, but help them put the system into operation, too.

Application Programs

To cut down the time and cost of planning your job on the 1440, IBM offers a number of Application Programs for different industries.

These provide completely planned, documented and tested procedures to handle many jobs that are common throughout the industry. If you wish, you can modify these programs to suit your particular procedures.

For jobs where specifications vary greatly from customer to customer, IBM provides a demonstration program illustrating the procedures required and, wherever possible, the instructions which may be used by the customer to develop his specific program.

IBM Application Programs are provided without charge.

Programming Systems

To help speed up the detailed work of programming development, IBM also provides a series of programming systems for the 1440. These programs help get the 1440 into operation sooner, with less trouble, and at less cost. These programs include:

Report Program Generator, a program that

lets you specify the form of the reports you want from the 1440. With these requirements, the RPG automatically generates the machine instructions to produce the desired reports.

Autocoder, a program that lets you write programming instructions in understandable names and symbols, rather than actual machine language. This greatly simplifies the preparation of programs for the 1440.

Input/Output Control System, a program that eliminates much of the detailed work required for input and output operations.

Disk Storage Organization, a program that helps establish and maintain business records in the disk storage units.

Disk Storage Utility, a program that clears the disk storage and transcribes data to and from disk packs.

Sort, a program that rearranges the records in disk storage into any desired sequence.

Training your people

IBM provides a series of 1440 education courses, each one planned for a specific member of your 1440 team. Courses are taught at the local IBM Branch Office or at an IBM Education Center in the area. They include a one-day seminar for executives, a three-day course on the report program generator, and a two-week school in basic programming methods.

Systems Engineering

IBM systems engineers work directly with your employees in planning your 1440 installation. They help you determine the jobs you want the 1440 to do and plan the best system configuration to give you maximum results.



IBM

DISK STORAGE DRIVE



Card Read-Punch

Components of the 1440 include the card read-punch, processing unit, disk storage drive and disk packs, console, and printer.

As your business grows, the new 1440 can grow with it. You can add additional components as you need them: another card read-punch, for example, and up to a total of five disk storage drives. If your requirements eventually grow beyond this configuration, you probably will be ready to step up to a larger computer system in IBM's 1400 series.



Processor

Here's a brief description of the major features of these components:

Card Read-Punch: Here's where nearly all business data, in punched card form, feeds into the 1440 system. The card read-punch also produces output from the 1440, in punched cards, if your program so requires.

The card read-punch uses solar cells for high-speed, accurate reading of the cards—up to 400 cards per minute.

And it punches data into cards at a rate of up to 160 columns per second.

Processing Unit: All the logic and arithmetic units of the 1440 system are housed in the processing unit. Program instructions are stored here, too. The processing unit controls the execution of these stored programs, performs all the calculations, and directs the operation of all the other components of the system.

The processing unit does all this at high speeds. In one second, for example, the processing unit can add 4,000 five-digit numbers.

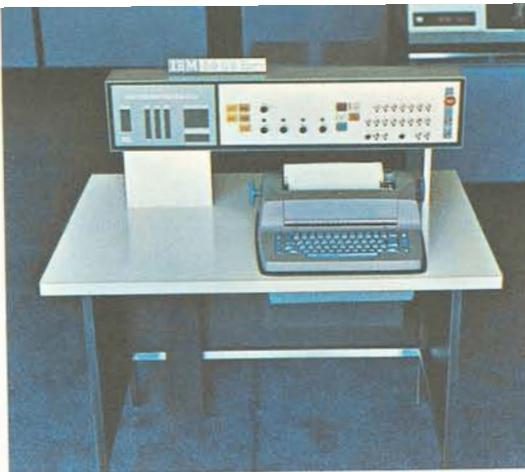
Four thousand alphabetic and numeric characters can be stored in the processing unit. And additional storage positions are available in the processor for larger requirements. For very large programs, requiring even more storage positions, a disk pack on the disk storage drive can be used.

Disk Storage Drive and Disk Packs: The removable, interchangeable disk packs are the key to the 1440's value. Because disk packs are interchangeable, you can use as many packs as you need to store all your business records. For a specific job, you use the disk packs containing the business records for that specific job. An operator changes disk packs in a few moments. A pack weighs less than 10 pounds and is easily attached to the system.

Nearly 3,000,000 characters of information can be stored on just one disk pack. And a 1440 system may have as many as five disk storage drives in operation at one time.

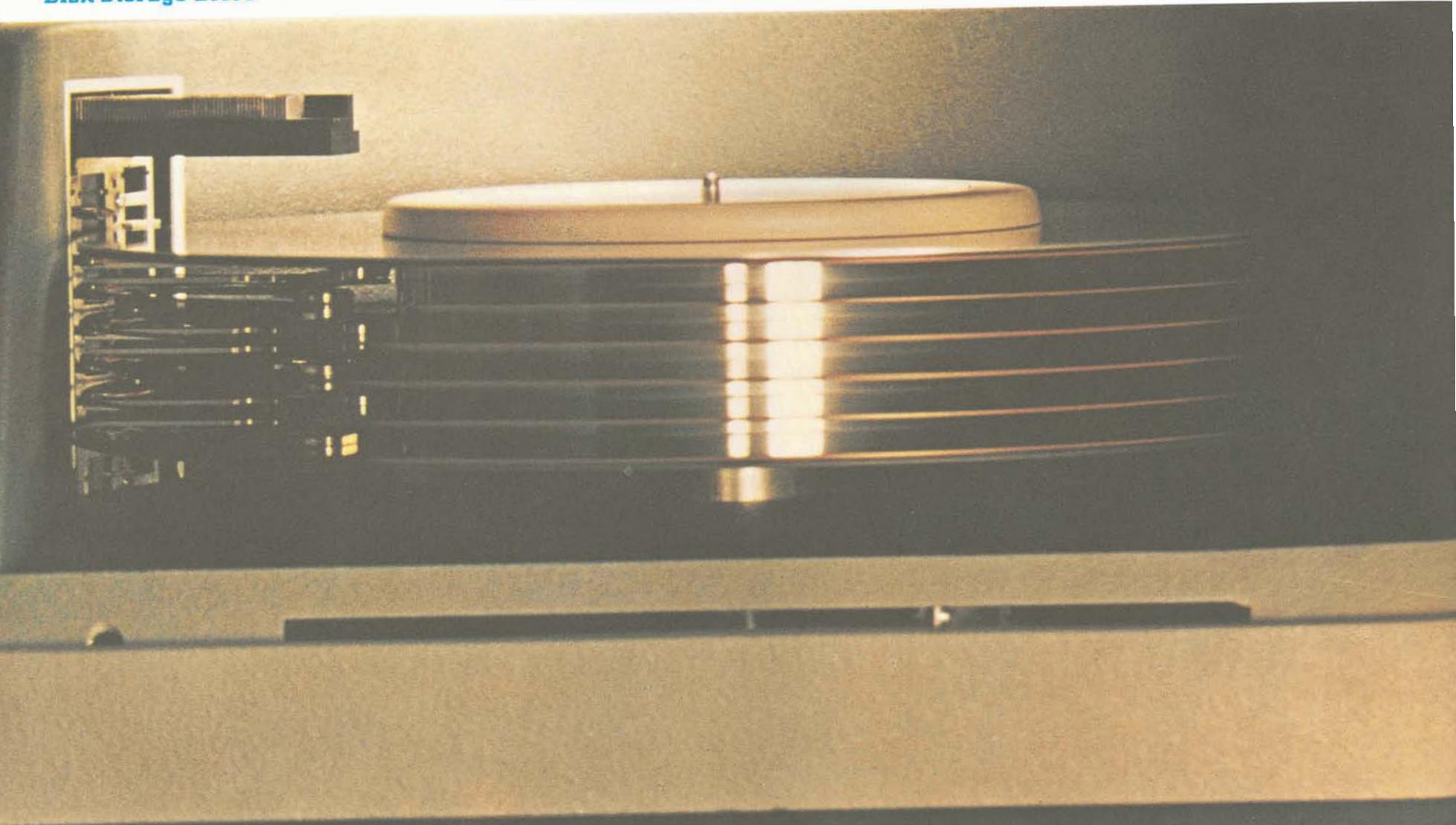


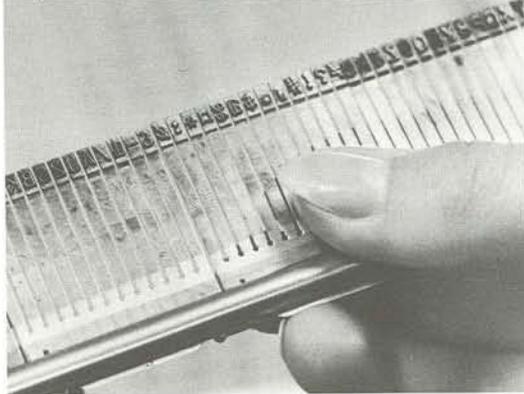
Disk Storage Drive



Console

Access Arms in action





Typebar

All the information stored on a disk pack can be read and rewritten in approximately three minutes, since data goes on and comes off these rotating disk packs at the rate of 77,000 characters per second.

To do this, comb-like arms of the disk storage drive move at great speed between the rotating disks of a pack. They not only move data in sequence at these speeds, but also have immediate access to seek out at random any record located anywhere in the disk pack. With random access, you have access to any record in the pack—in seconds.



Printer

Console: The console serves not only as the operator's control position for the entire system, but it may also include a special typewriter for direct written communication between the operator and the computer.

Using the typewriter, an operator can make direct inquiry to any business record stored in the system. Within seconds, the 1440 seeks out the record, wherever it is stored, and prints it out on the typewriter.

What's more, the 1440 can be programmed to automatically print out on the typewriter any unusual business activity that requires immediate management attention. For example, an inventory shortage, an over-extension of credit, any unusual fluctuation in a customer's ordering cycle, could be reported out of the 1440 system immediately.

Printer: Outstanding feature of the 1440's printer is the interchangeable typebar. Various typebars are available with various sets of characters—numbers; numbers and letters; numbers, letters, and special characters, for example. You use the specific typebar required for your particular job. And an operator can change typebars in seconds.

Basic printing speed is 150 lines a minute. But you can get up to 430 lines a minute, using the 13-character numerical typebar.

Attachment

The 1440 can be made even more versatile by attaching a 1412 Magnetic Character Reader, which reads magnetically encoded banking documents, such as checks and deposit slips, into the 1440 system. Reading speeds range up to 950 documents a minute in the 1412.

