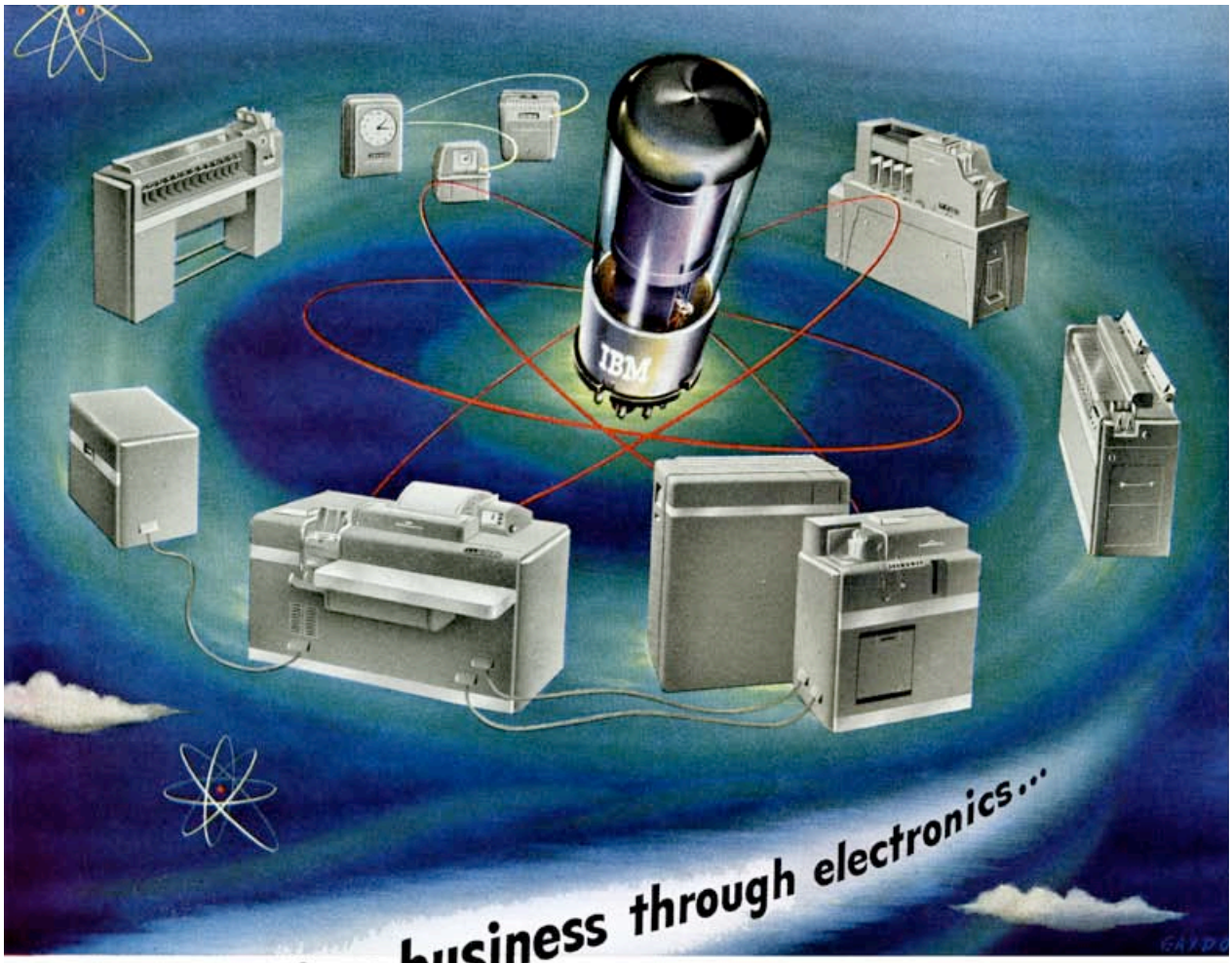

Speeding business through electronics...

Through IBM research and development, the remarkable abilities of electron tubes have been put to work in business machines.

Electron tubes—fast, versatile, accurate—are used in the IBM Machines pictured here to calculate at extraordinary speeds, to "remember" the answers to intricate computations, to follow long series of instructions, to control the flow of electricity with amazing precision.

IBM Electronic Business Machines are cutting the time between questions and answers—helping science and industry produce more good things for more people.

The IBM machines illustrated use electronic principles. Clockwise from the top, they are: Electric Time System, with Electronic Self-regulation; Alphabetical Collator; Statistical Machine; Card-programmed Calculator, including Calculating Punch; Punched Card Sorter.

For descriptive literature, write to Dept. N.

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International Business Machines Corporation
590 Madison Avenue • New York 22, New York

IBM's pioneering research and development in the application of the science of electronics to computing machines have added greatly to the reach and scope of man's creative activity.

Through the use of electron tubes such as the one shown above, IBM has produced machines which are hundreds of times faster than calculators based on mechanical principles. Accurate answers to scientific and business problems involving the most complicated mathematics are being obtained in minutes instead of hours, days instead of months.

Through IBM Electronic Machines, the human mind is finding new release from mathematical drudgery.

IBM products using electronic principles:

Card-programmed Calculator
Calculating Punch
Statistical Machine
Alphabetical Collator
Punched Card Sorter
Electric Time System with Electronic Self-regulation

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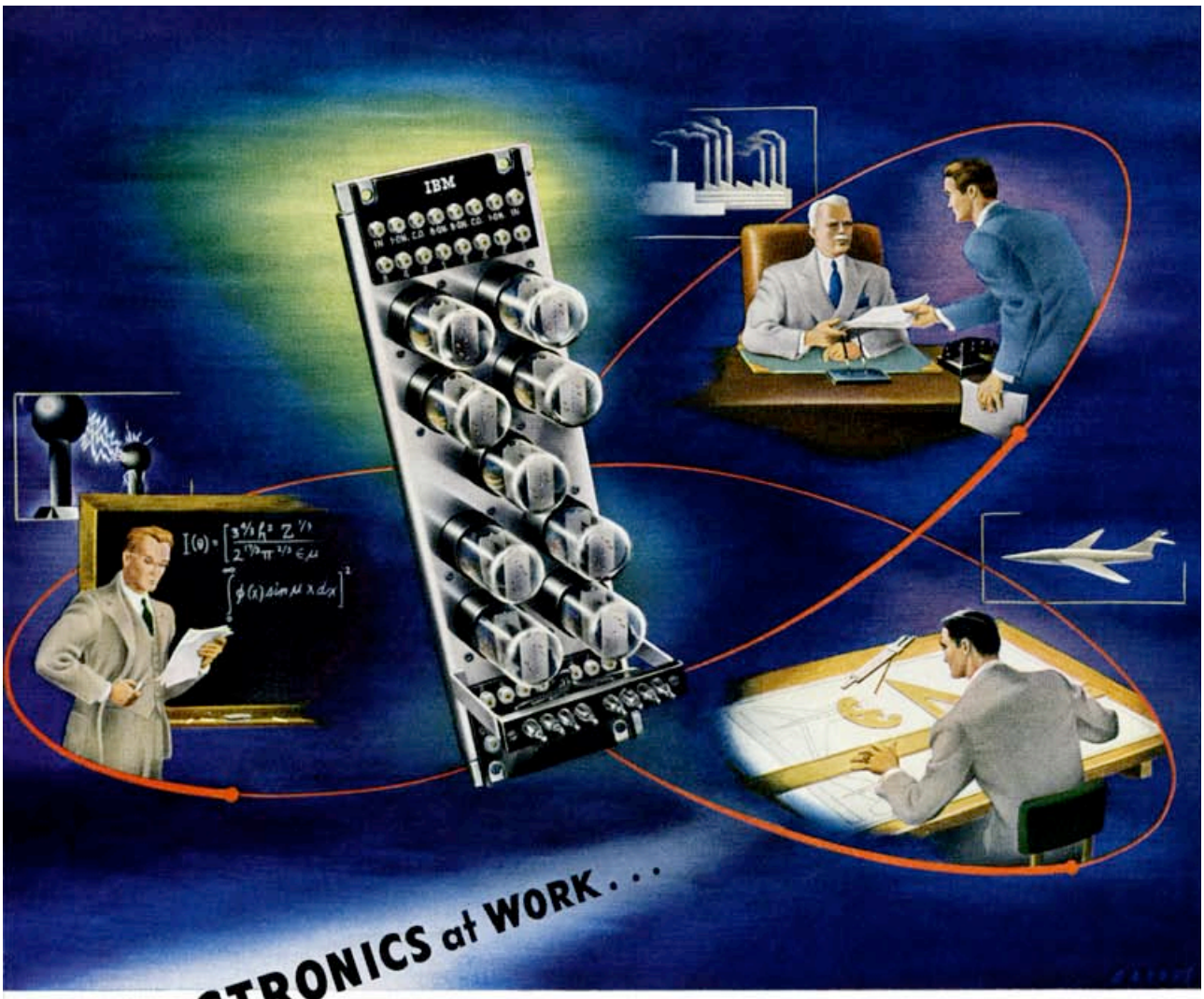

ELECTRONICS at WORK . . .

A BUSINESSMAN needs a report on his company's production and inventory position, and he has to have it faster than ever before.

A SCIENTIST, working in the atomic energy field, needs to know the exact effect of relativistic mass increases in the slowing down of fast electrons.

AN AIRCRAFT DESIGNER needs to determine the theoretical stresses and strains brought about by the use of new-type controls on a jet-powered, supersonic plane.

Today, these intricate requirements and countless others are being met at amazingly high speed through the use of IBM Electronic Business Machines.

IBM pioneered in the application of the science of electronics to business machines . . . machines which benefit everyone through increasing the productivity of industry and science.

The device shown is the IBM Electronic Counter, basic unit of IBM Electronic Machines which compute arithmetical problems at tremendous speeds.

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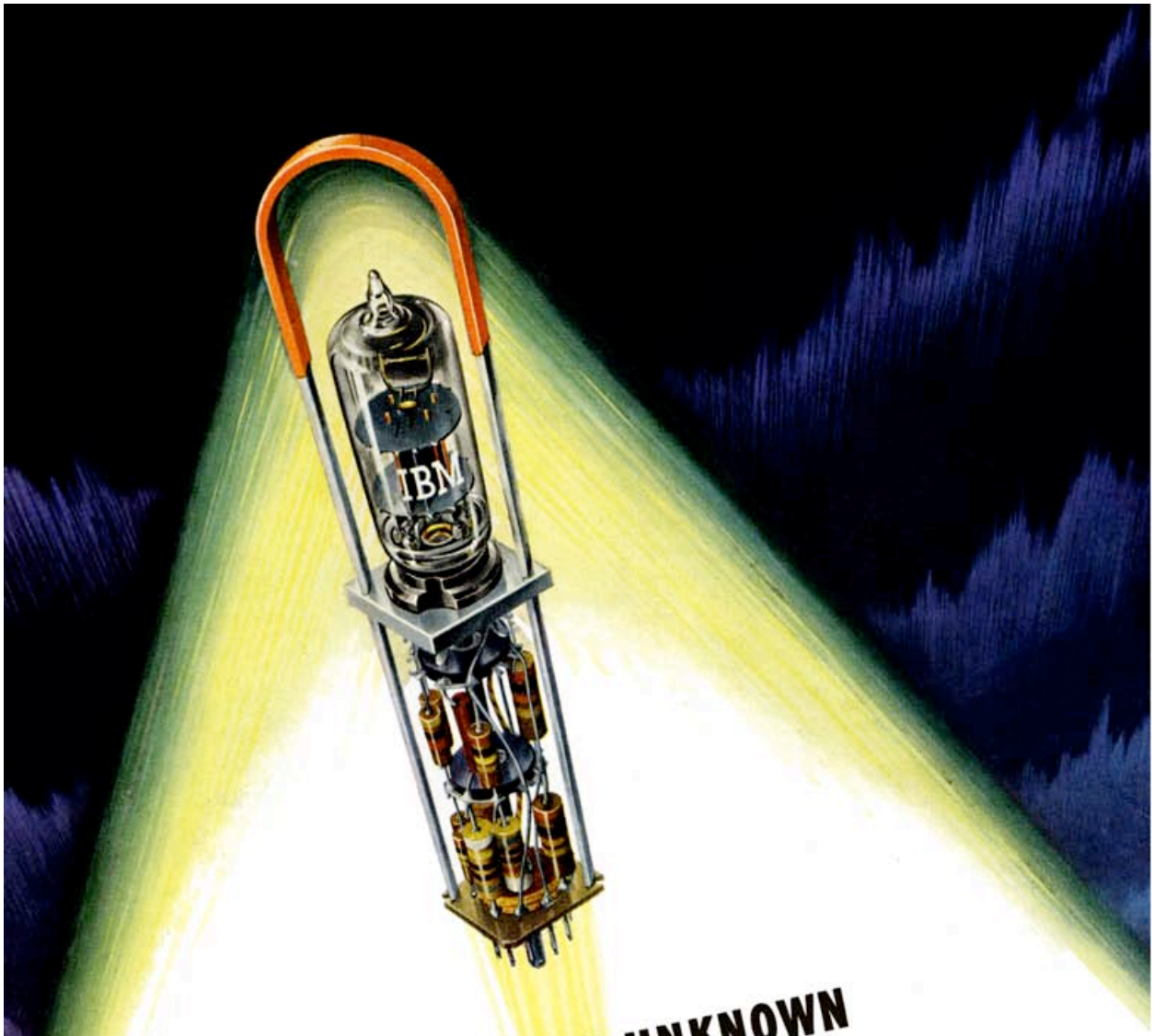


PIERCING THE UNKNOWN

This IBM electronic tube assembly cuts through the unknown like a rocket through the stratosphere.

It probes the mysteries of the atom's core; predicts critical wing flutter of fast aircraft; traces paths of light through a lens system; calculates trajectories of guided missiles; plots the course of planets for the navigator.

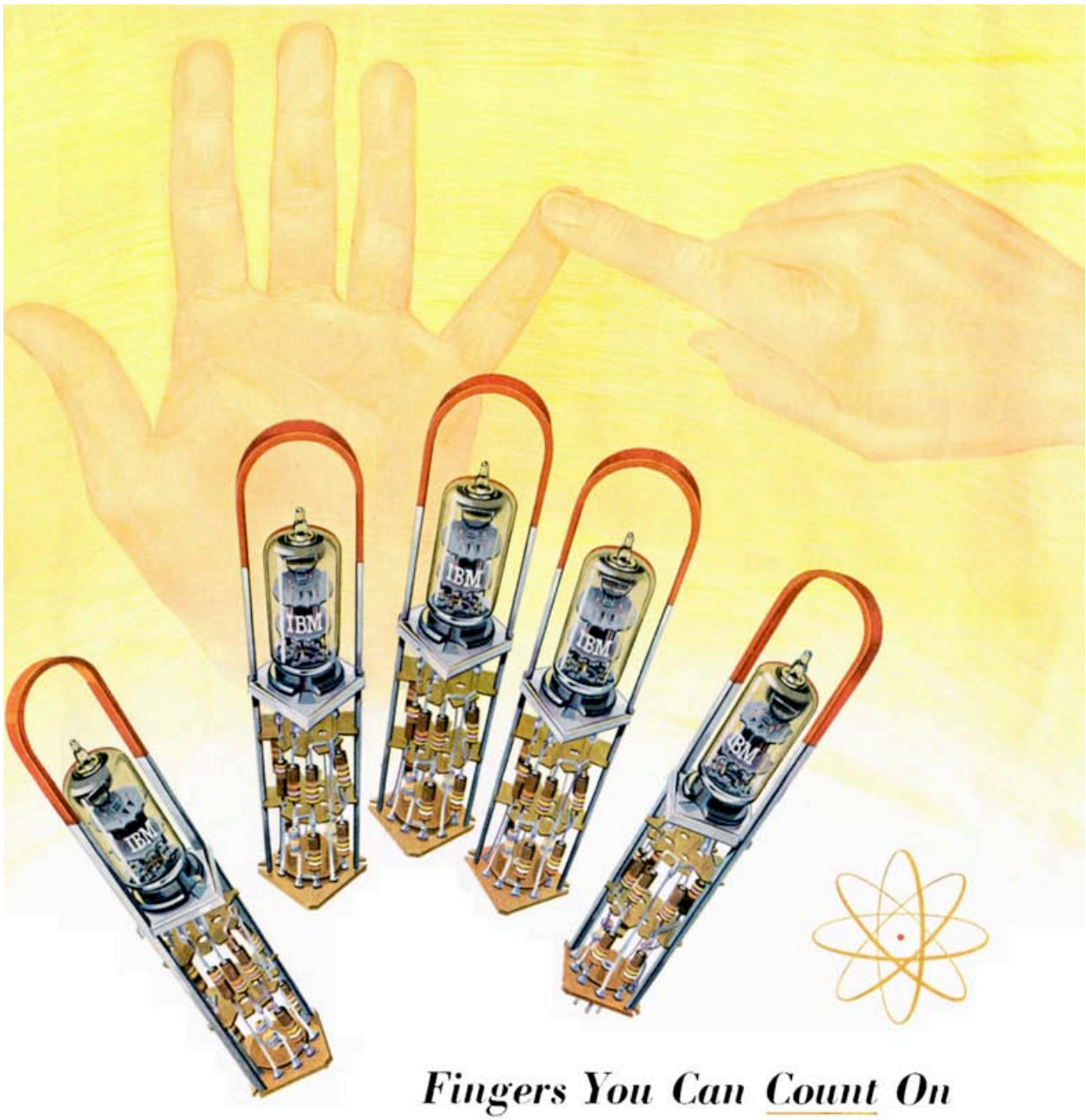
It calculates payrolls, inventories, costs; points out savings of time and money.

These compact, pluggable units are the heart of IBM Electronic Calculators.

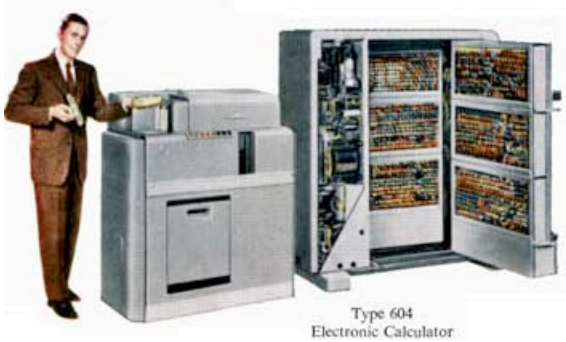
INTERNATIONAL BUSINESS MACHINES

IBM

IBM Electronic Business Machines are vital defense weapons in the hands of our nation's industrial engineers and scientists.



Fingers You Can Count On



Type 604
Electronic Calculator

These are electronic "fingers". . . the compact and rugged pluggable units in IBM Electronic Business Machines. Their high-speed counting capacity and amazing accuracy meet the most exacting accounting and calculating requirements of business, industry, and engineering.

These "fingers". . . backed by IBM service, research, and development . . . are helping to fulfill production demands with economy of time, materials, and costs.

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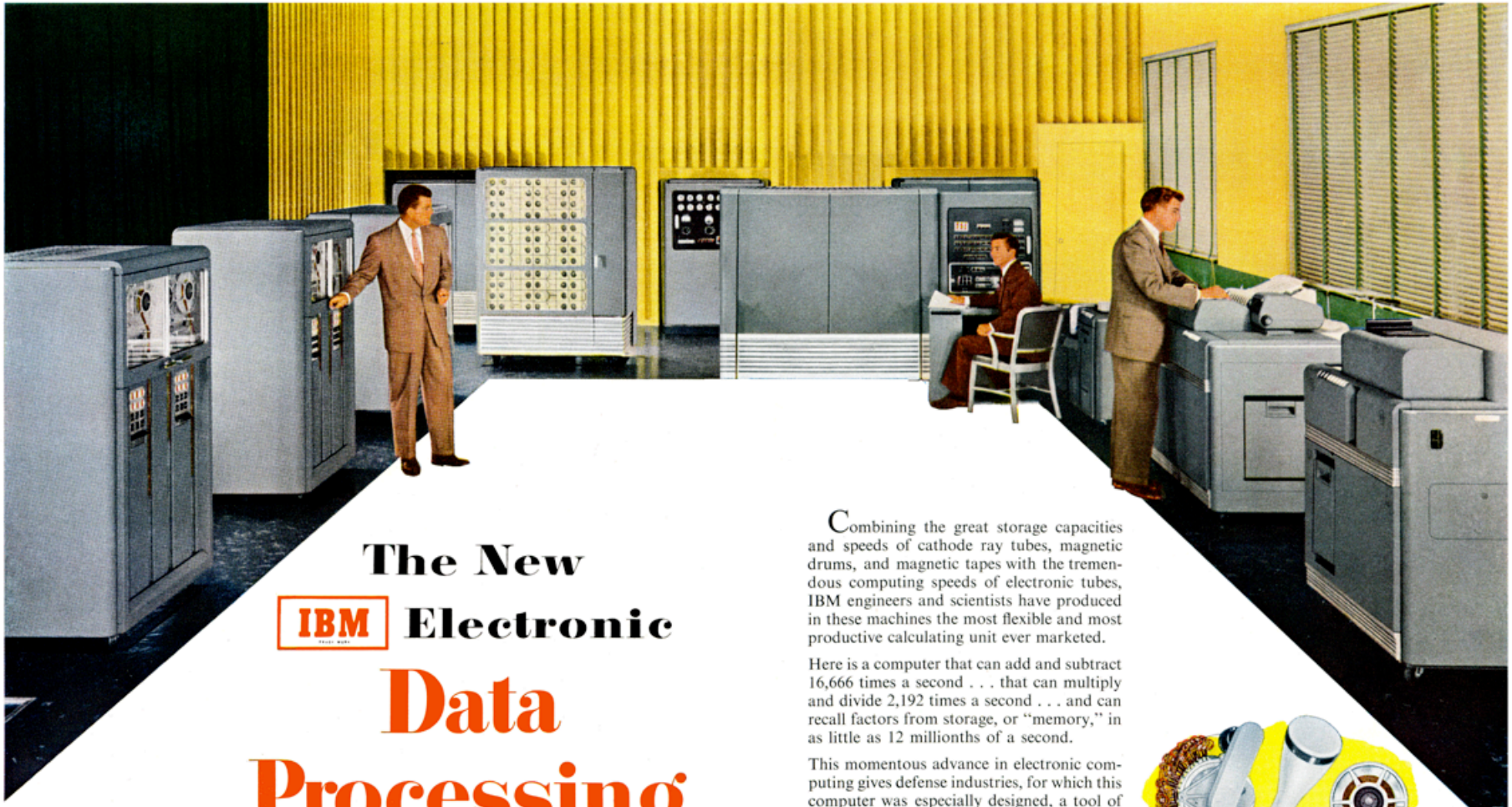
Electronic Business Machines

INTERNATIONAL BUSINESS MACHINES



The New IBM Electronic Data Processing Machines

For Science  *Industry... Defense*

Combining the great storage capacities and speeds of cathode ray tubes, magnetic drums, and magnetic tapes with the tremendous computing speeds of electronic tubes, IBM engineers and scientists have produced in these machines the most flexible and most productive calculating unit ever marketed.

Here is a computer that can add and subtract 16,666 times a second . . . that can multiply and divide 2,192 times a second . . . and can recall factors from storage, or "memory," in as little as 12 millionths of a second.

This momentous advance in electronic computing gives defense industries, for which this computer was especially designed, a tool of vast power and versatility. For peacetime uses, it will be applied to a wide variety of engineering, research, and scientific problems.

The new IBM Electronic Data Processing Machines are the forerunners of data processing machines for business, now under intensive development in IBM laboratories.

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3 KINDS OF "MEMORY"

(1) Magnetic drums—any of 81,920 digits* can be stored or recalled in an average of 40/1,000 of a second. (2) Cathode ray tubes—any of 10,240 digits* can be stored or recalled in 12/1,000,000 of a second. (3) Magnetic tapes—any of 2,000,000 digits* can be stored on *one* tape or recalled from it at the rate of 12,500 a second.

**Expressed in terms of equivalent decimal digits.*

150 Extra Engineers

An IBM Electronic Calculator speeds through thousands of intricate computations so quickly that on many complex problems it's just like having 150 EXTRA Engineers.

No longer must valuable engineering personnel . . . now in critical shortage . . . spend priceless creative time at routine repetitive figuring.

Thousands of IBM Electronic Business Machines . . . vital to our nation's defense . . . are at work for science, industry, and the armed forces, in laboratories, factories, and offices, helping to meet urgent demands for greater production.

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Leonardo da Vinci's Flying Machine

In the time of Leonardo da Vinci, the 500th anniversary of whose birth is being celebrated this year, men had to take great risks to further the progress of science. The attempt at flight pictured here was made in 1505—with near-fatal results.

Today···Experiment Without Peril

Type 604 Electronic Calculator

The risks and costs of exploring industrial, business, and scientific theories can be cut to the minimum by using IBM Electronic Business Machines.

With the amazingly swift calculating power of these machines at their disposal, businessmen and inventors of today can check their theories, pre-test the products of their vision, and virtually predict actual performance.

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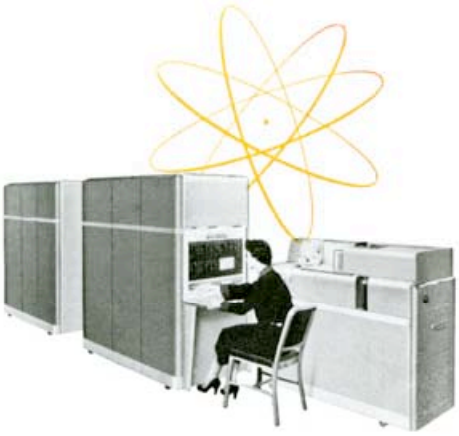
Croesus' cavalry stampeding at the sight of Persian camels

Today . . . Facts Are What Count



The recent great strides in military science, pure science, commerce, and industry have resulted from modern man's ability to determine the facts and act accordingly.

Tremendous advances have been made in the past few years in fact-finding machines. Through electronics, great masses of data that would have taken a lifetime to process can now be handled in a few days. Ordinary volumes of work can be done in minutes.

By making "mathematical models" of specific processes, products, or situations, man today can predetermine probable results, minimize risks and costs.

IBM

World's Leading Producer
of Electronic Accounting Machines

INTERNATIONAL BUSINESS MACHINES, 590 Madison Avenue, New York 22, N. Y.

GETTING YOUR ANSWERS

. . . at electronic speed!

IBM's vast engineering know-how is helping business, industry and the Armed Forces get the answers...fast. Through its leadership in applying electronic principles to calculators and other types of punched card business machines, IBM has given greater speed, accuracy and economy to the nation's vital processes of calculating and accounting.

Already thousands of IBM Electronic Business Machines are in everyday use. We are continuing to manufacture them in quantity . . . as fast as quality production will permit.

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NEW MOON

The earth's new moon, soon to rise, is only 20 inches in diameter. But its significance is immense: the penetration of the most exciting new frontier in the history of scientific research.

Plunging through silence, hundreds of miles high, circling the slow earth 15 times each day, this man-made satellite will have the universe as a laboratory . . . helping to confirm or deny age-old theories and to record a whole new world of facts to shape our future.

But faster still, a powerful IBM 704 computer, at the Vanguard Computing Center in Washington, will race through complex calculations to determine the moon's orbit, to predict its location for scientific observation and study. *You are cordially invited to see the 704 at the Vanguard Computing Center and Exhibit in Washington, D.C.*

IBM INTERNATIONAL BUSINESS MACHINES CORPORATION