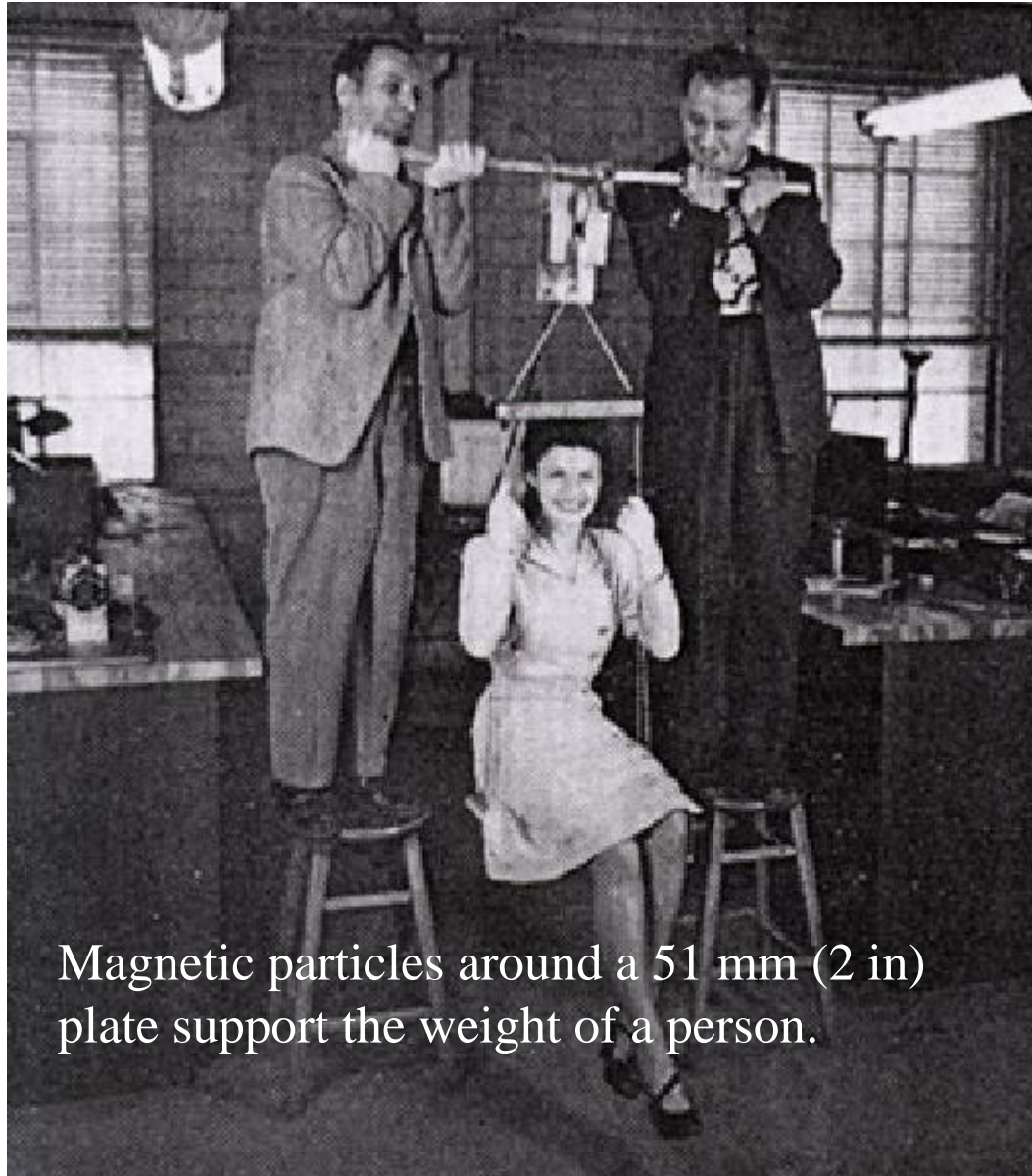




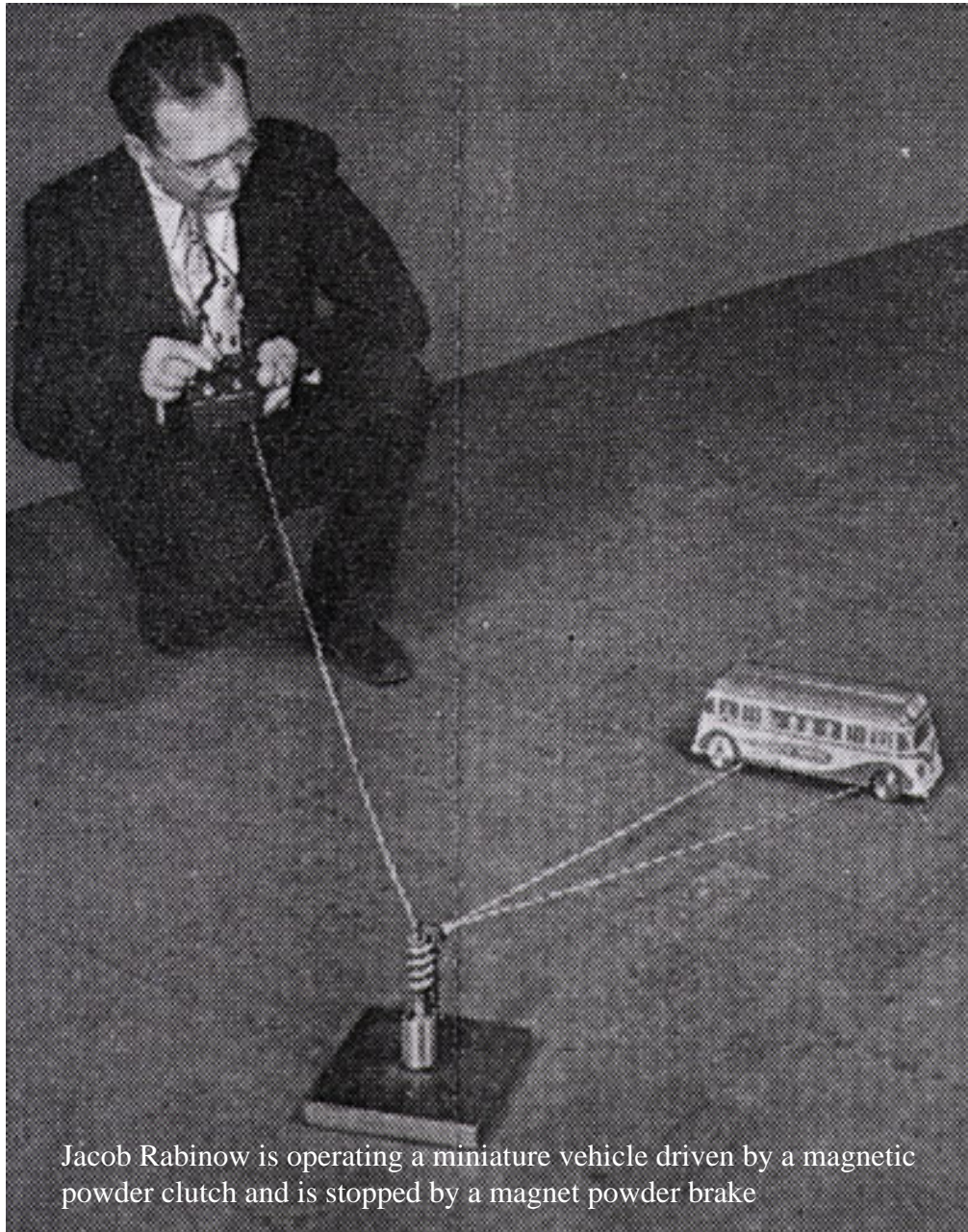
JACOB RABINOW

Jacob Rabinow was born in Kharkov, Russia on January 8, 1910. His family moved to New York City in 1921 where Dr. Rabinow received a degree in Electrical Engineering. He joined the National Bureau of Standards in 1938 where he worked on a variety of ordnance devices throughout World War II and became Chief, Electro-Mechanical Ordnance Division. He left NBS in 1954 to create two engineering companies; the first was merged with Control Data Corporation in 1964 and the second merged with Harmon Kardon Corporation.

In 1972, Dr. Rabinow rejoined NBS where he held several positions until his retirement in 1989. Dr. Rabinow held 230 U.S. patents.



Magnetic particles around a 51 mm (2 in) plate support the weight of a person.



Jacob Rabinow is operating a miniature vehicle driven by a magnetic powder clutch and is stopped by a magnet powder brake

Magnetic Powder Clutch Patent

Nov. 20, 1951

J. RABINOW

2,575,360

MAGNETIC FLUID TORQUE AND FORCE TRANSMITTING DEVICE

Filed Oct. 31, 1947

3 Sheets-Sheet 1

Fig. 1.

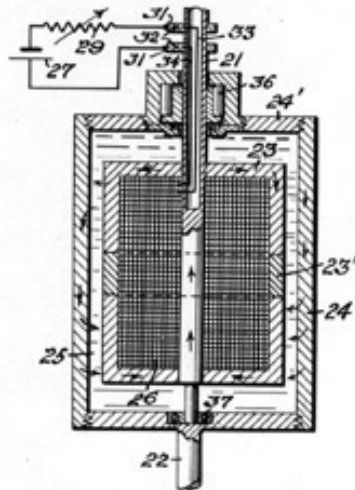
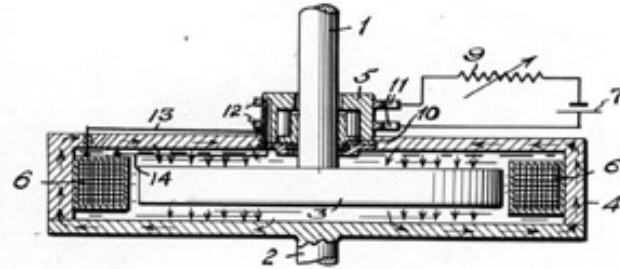


Fig. 2.

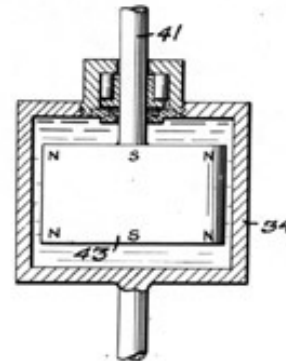


Fig. 3.

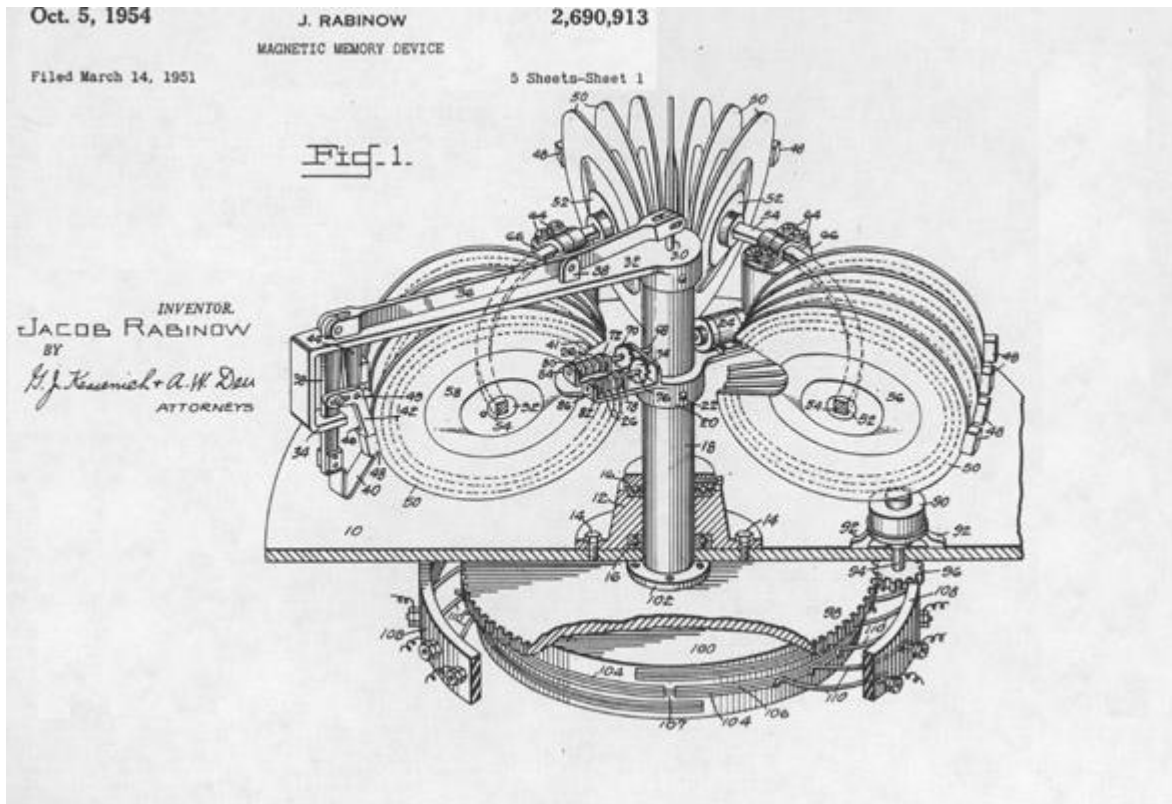
Inventor

Jacob Rabinow

J. H. Church, W. E. Theobald & M. L. Libman
Attorneys



Jacob Rabinow, the inventor, is demonstrating the large magnetic disc to Sam Alexander, head of the NIST computer laboratory. The decision was made to make the first discs 0.5 meter (20 in) in diameter and to drive them by two friction wheels contacting the discs near their outside edge. Starting each disc was done by a swinging mechanism that would engage a notch located on the outside edge of each disc.



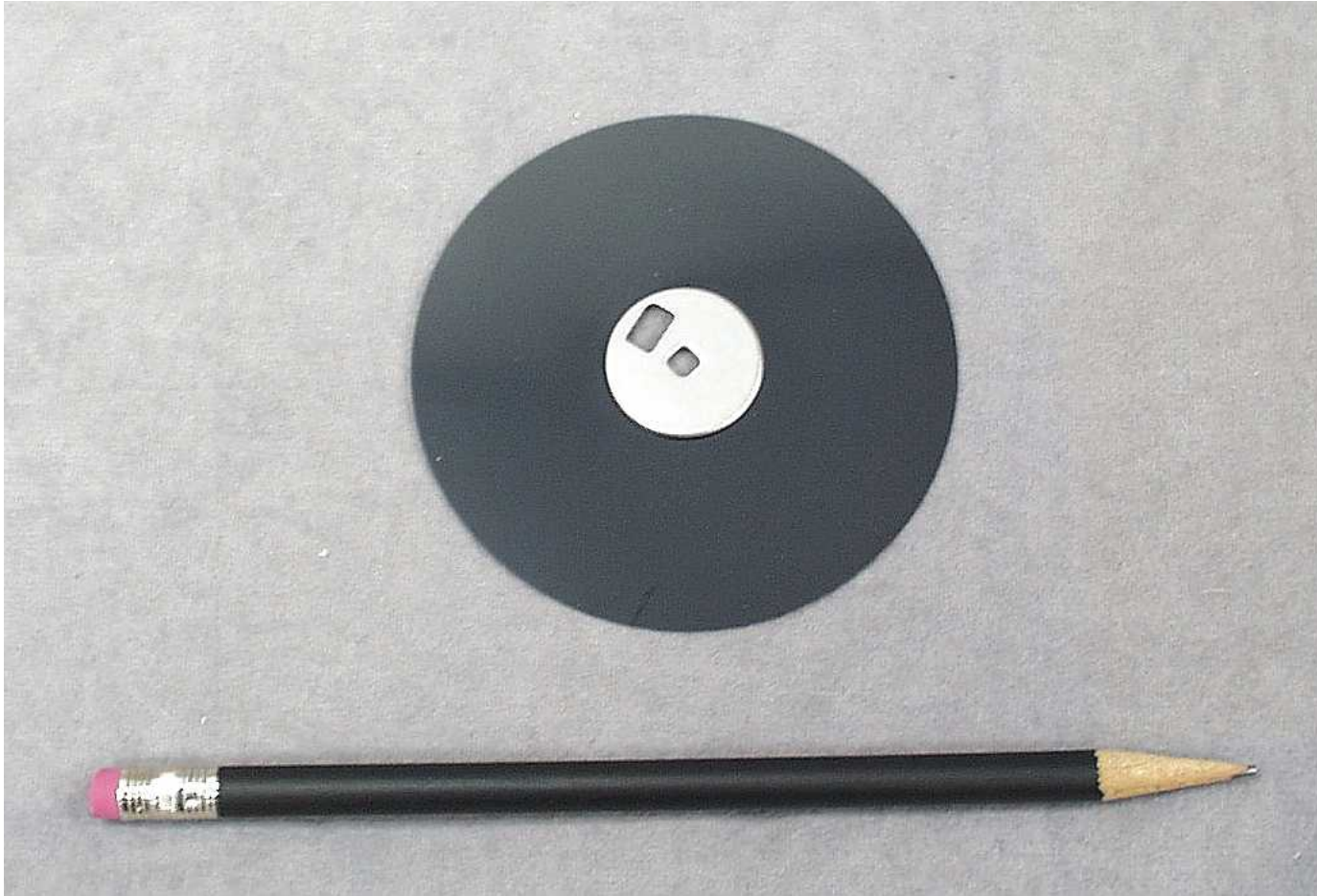
Notched Disk Memory Device Schematic Diagram

The general scheme is shown in the schematic diagram of the notched disc memory device.



Small model of the notched disc memory device. The rotation of each disc is started by a separate solenoid device; full rotation is accomplished by a small motor and two friction wheels as designed for the large model. Using the smallest heads available, each disc could store about one million bits of information on both sides. The access time for any data on any disc in the final machine was estimated to be one second.

Disc from the First Computer Disc File



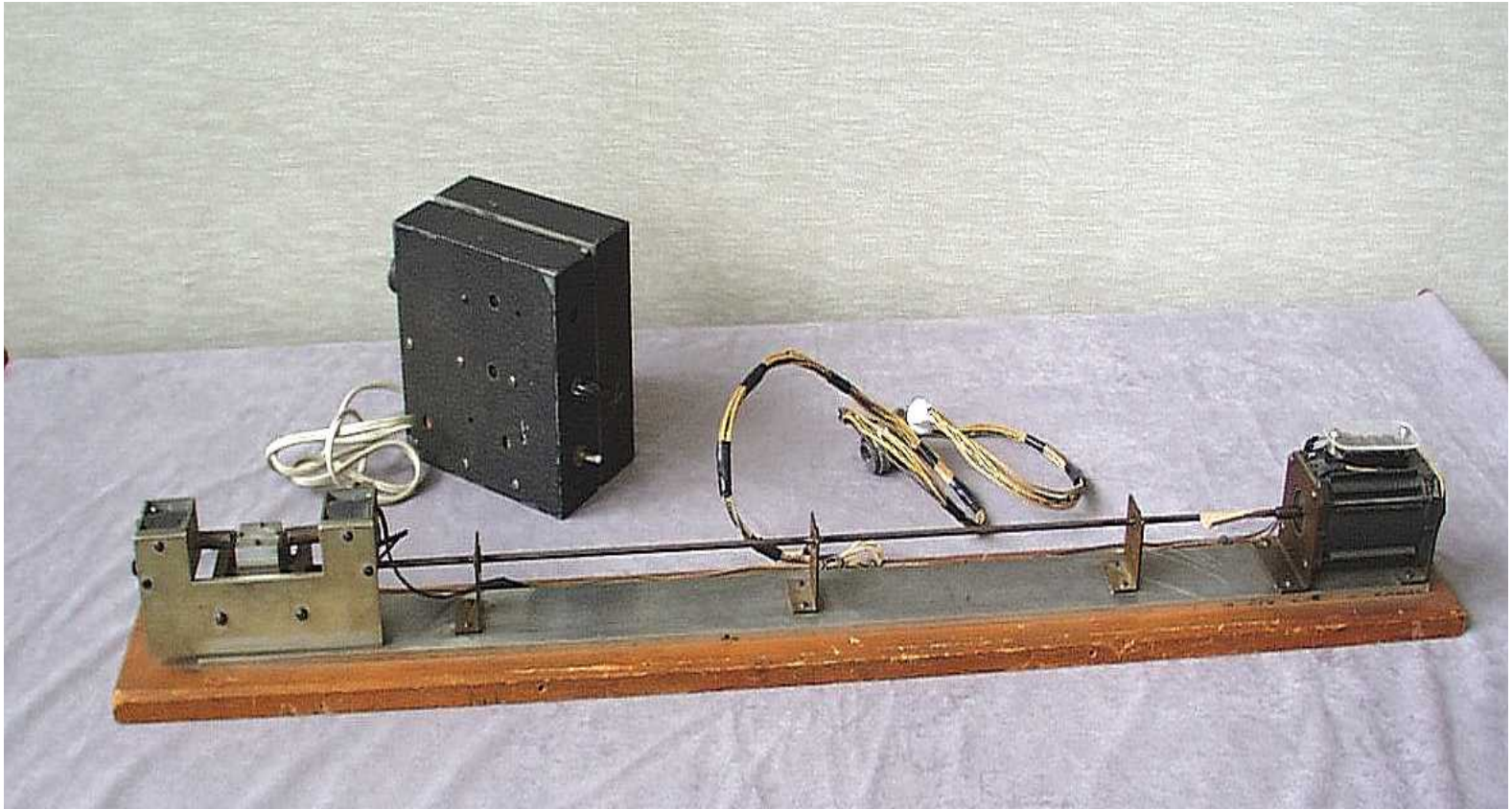


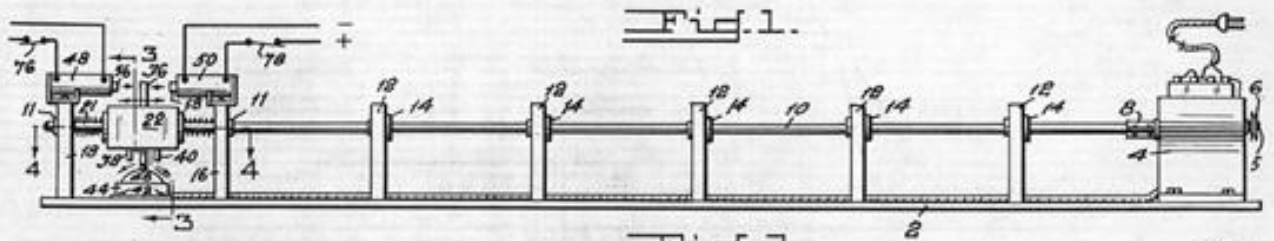
Move mouse over picture to see motor demonstrated and hear an explanation.

Rapid Reversing Motor

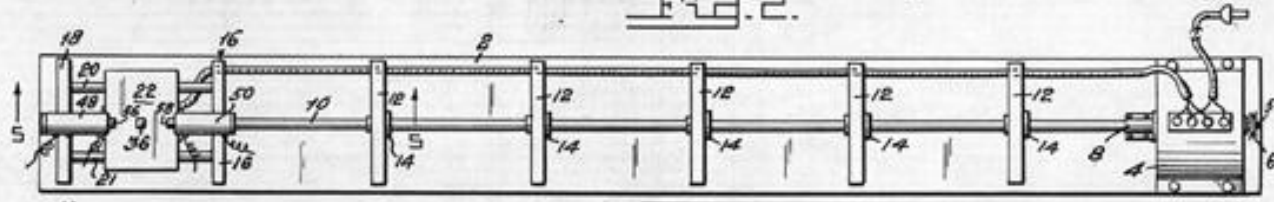
The purpose of the Rapid Reversing Motor is to demonstrate a very efficient method of reversing the direction of rotation of an electric motor. In some applications of such motors, rapid reversal is required as, for example, in moving white hot metal back and forth between rollers as in the production of sheet steel.

Instantaneous Reversing Motor

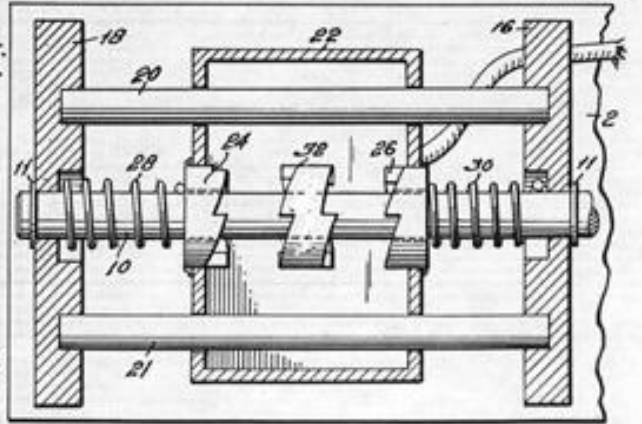
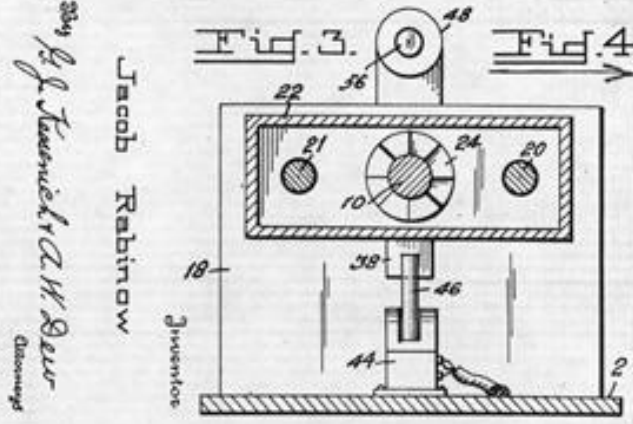




March 17, 1953
 Filed March 14, 1951



J. RABINOW
 INSTANTANEOUS REVERSING MOTOR

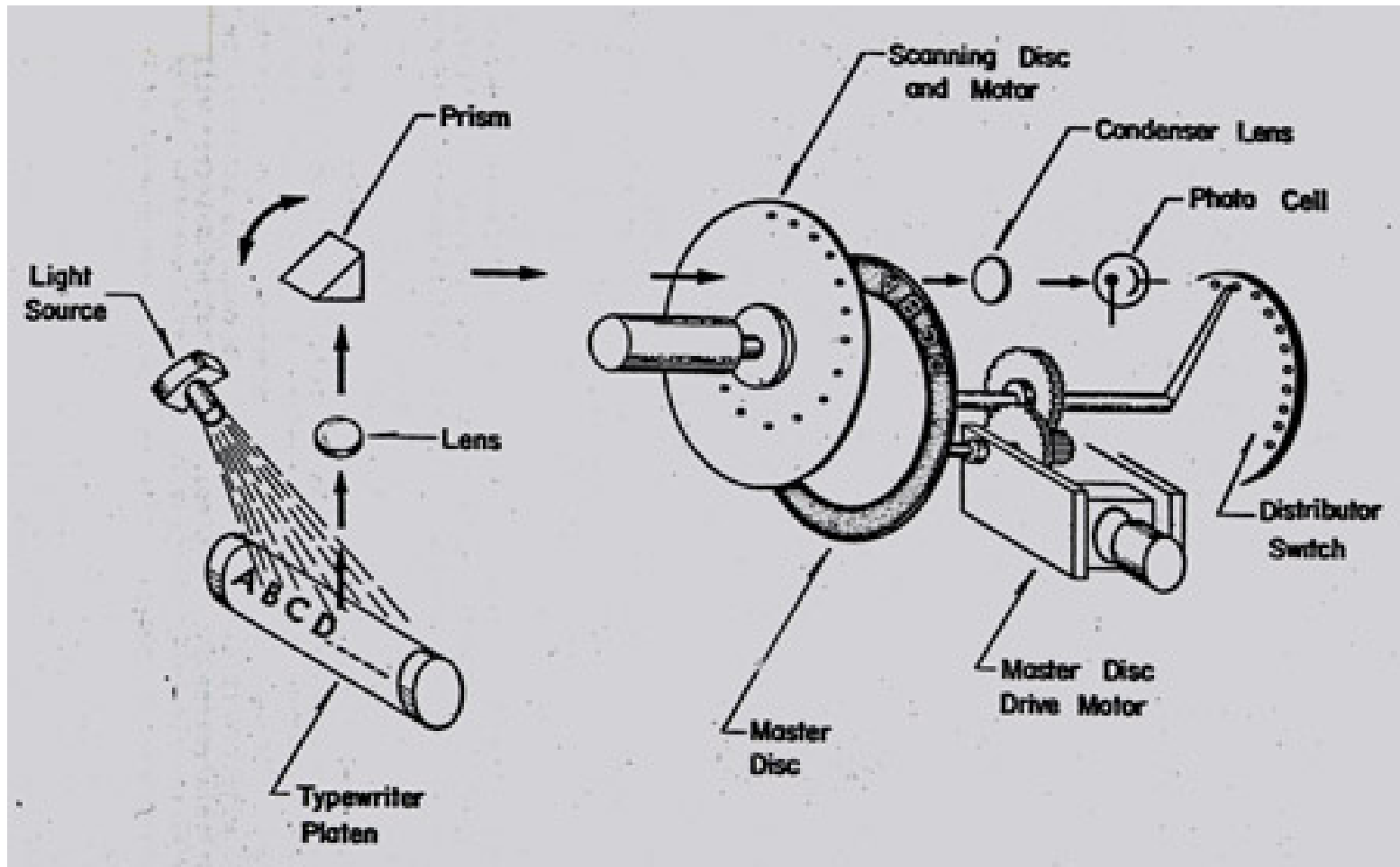


2,632,141
 2 SHEETS—SHEET 1

Jacob Rabinow
 Inventor
 By J. K. Kaminich & A. W. Bell
 Attorneys

The Patent drawing of the Rapid-Reversing Motor shows the construction of the device.

DOFL First Reader



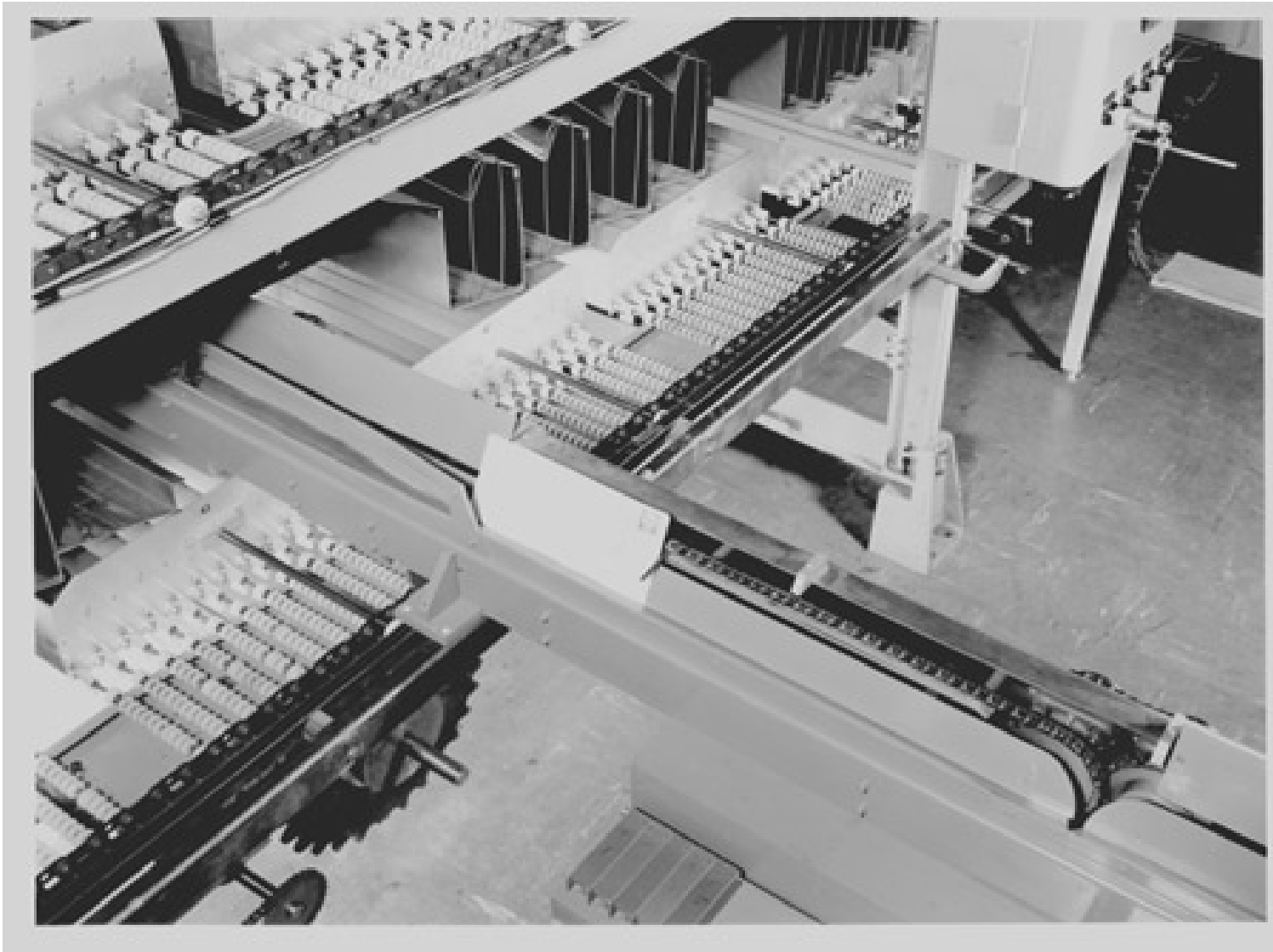
This is a schematic view of DOFL first reader. An unknown printed character that was to be recognized was compared to all the character sets that could contain that character, and the closest match was used to indicate the identity of the unknown character. This technique permitted the correct identification of a character even if the character were poorly printed, had parts missing, or was partly covered by "dirt".

Letter Sorting Machine



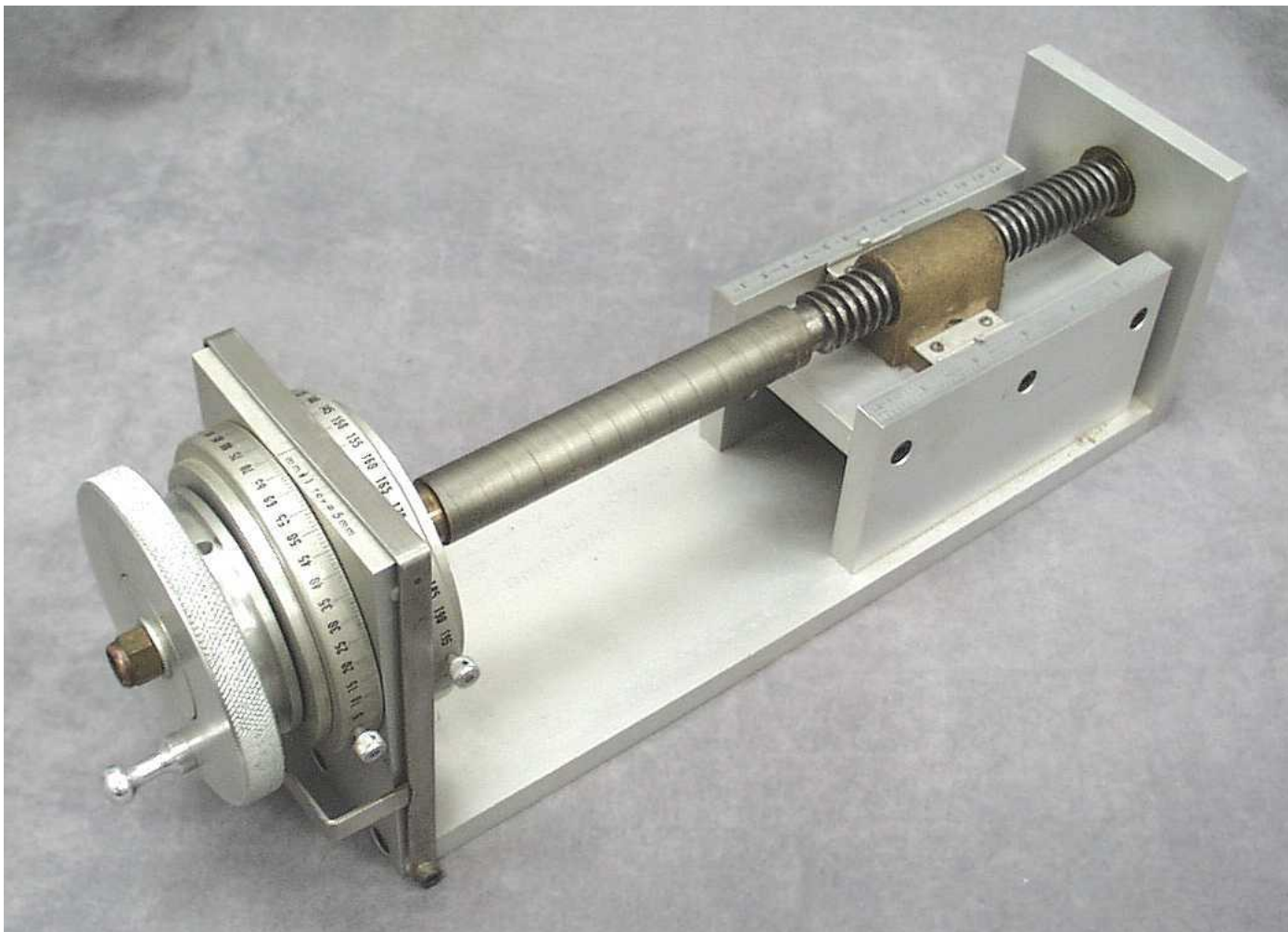
This Letter Sorting Machine was in operation in a post office. The machine operated on the principal of the conveyer belt card sorter.

Letter Sorter Conveyor Belt

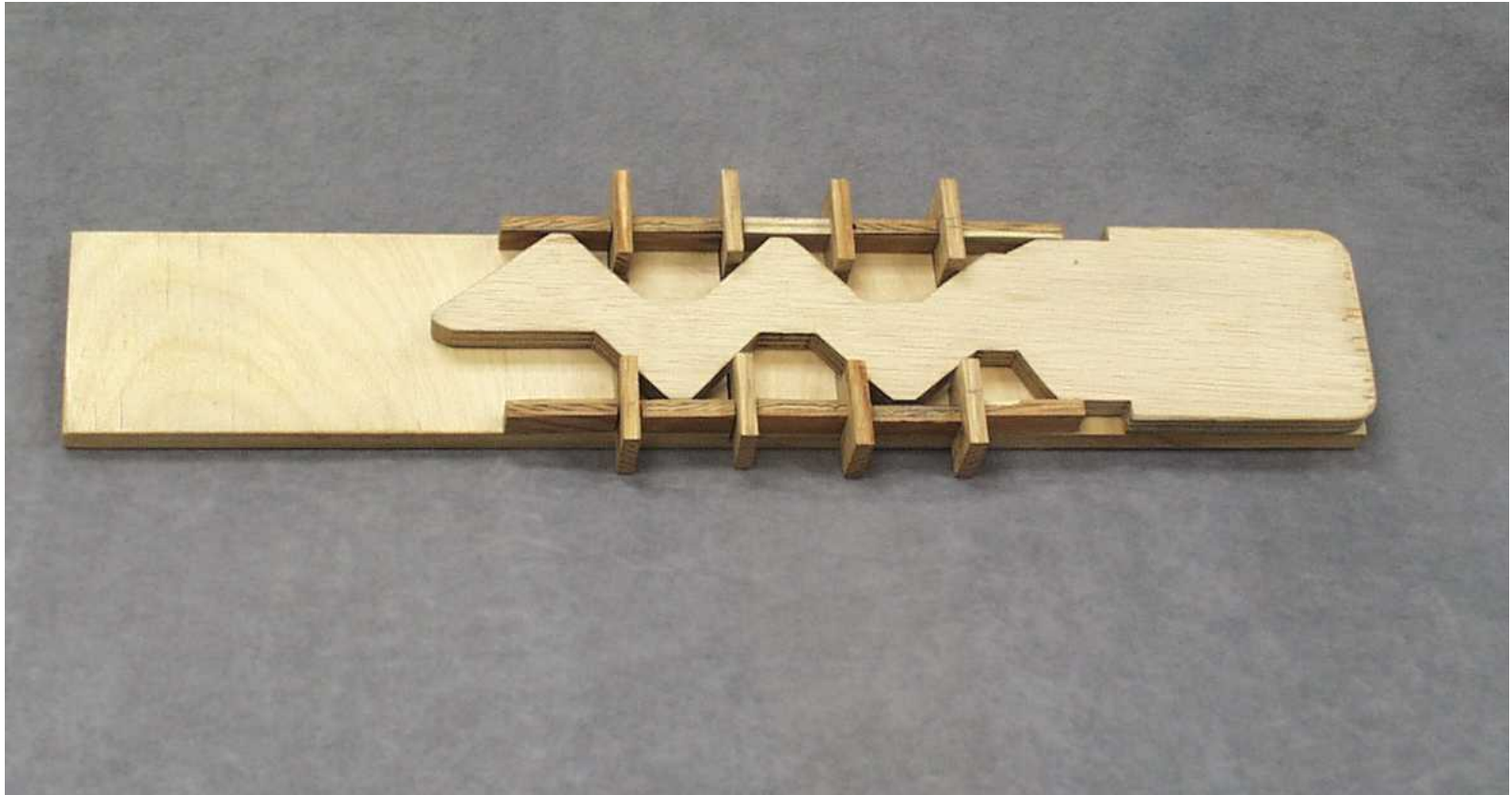


A letter leaving an operator is on its way to the conveyer belt. Basically the Letter Sorter is a conveyer consisting of letter-carrying carts equipped with escort memories that determine where each letter is to be dropped.

Metric-English Converter for Machine Tools with Automatic Selector



Key For Flat Tumbler



Self Regulating Clock



Special Font and OCR Machine



Telephone Call Indicator



Foot Rest

