No. 666,599. Patented Jan. 22, 1901.

B. F. CANODE.

ADDING MACHINE.

(Application filed Jan. 8, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

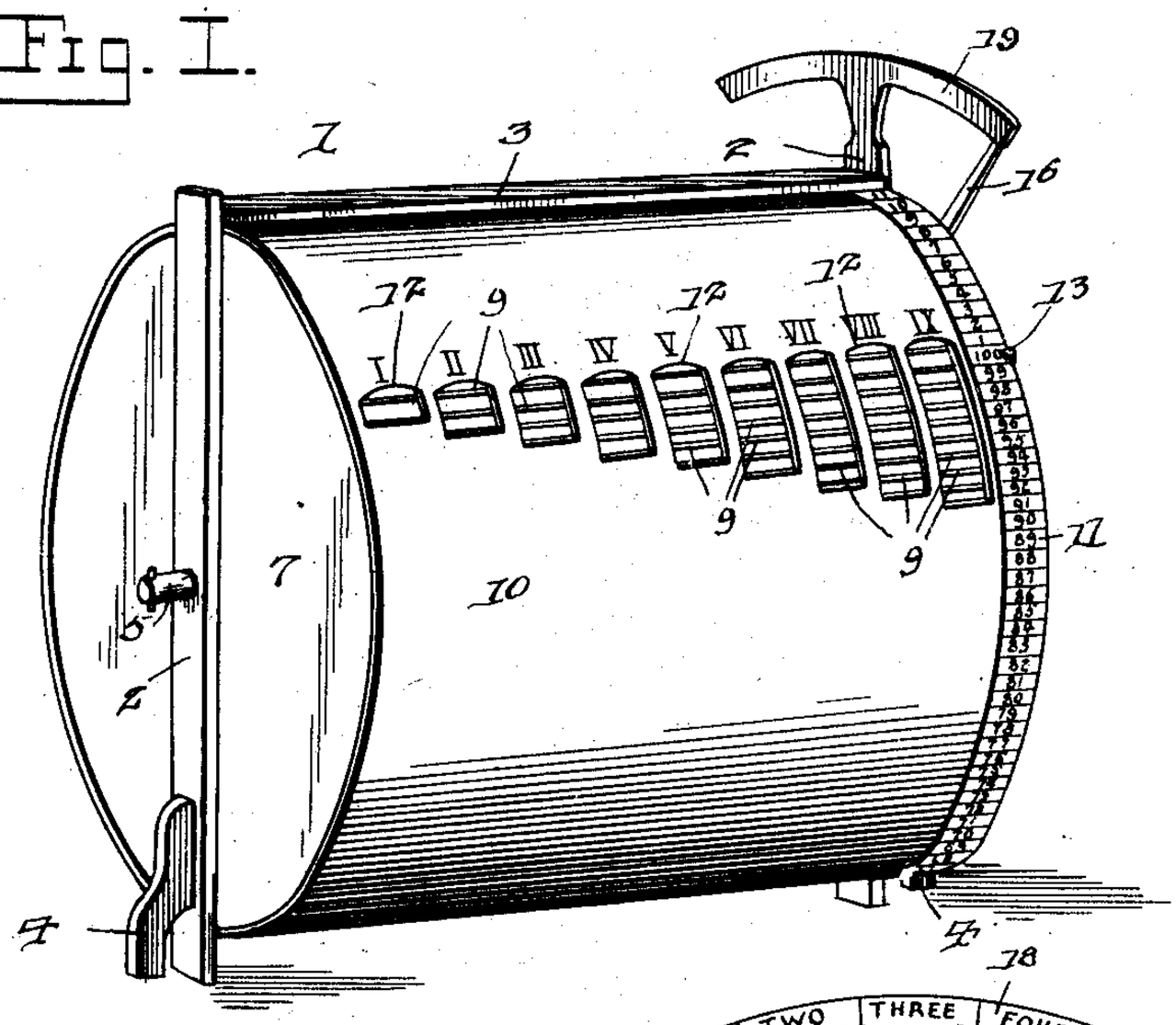
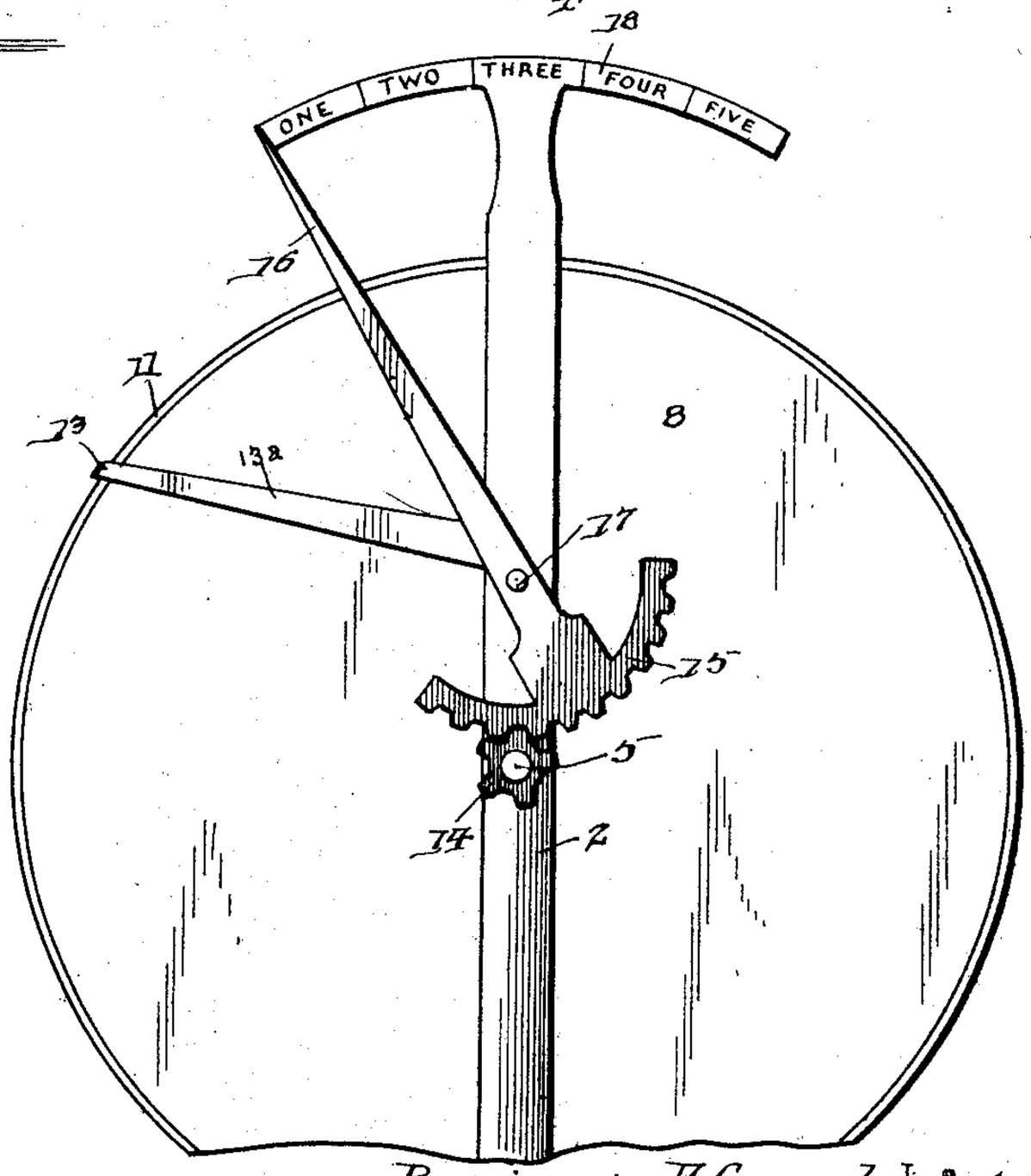


Fig. 4.



Witnesses
F. E. Alden.
J. F. Riley

Benjamin F. Canode Inventor
By His Attorneys,
C. A. Snow & Co.

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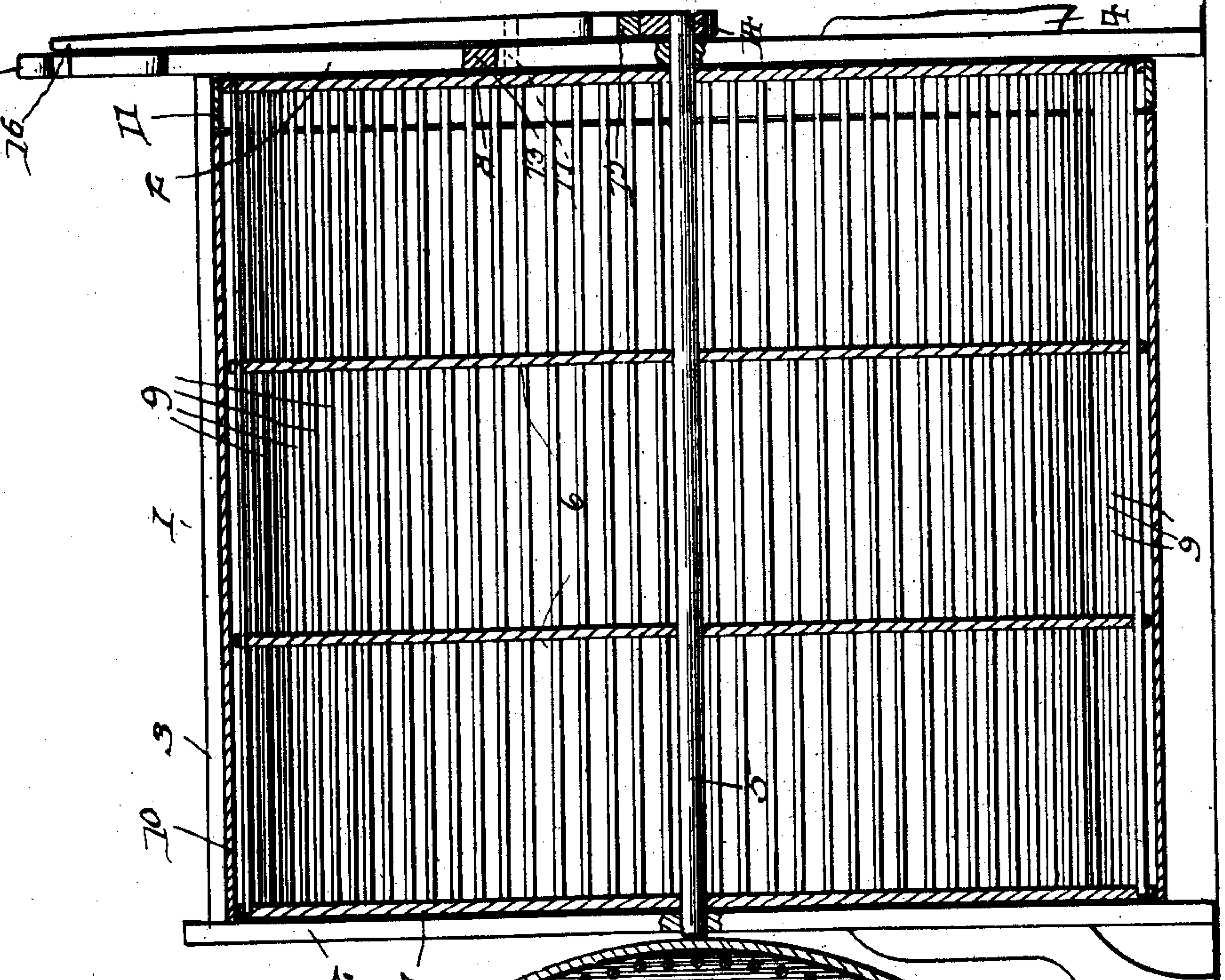

Fig. 3.

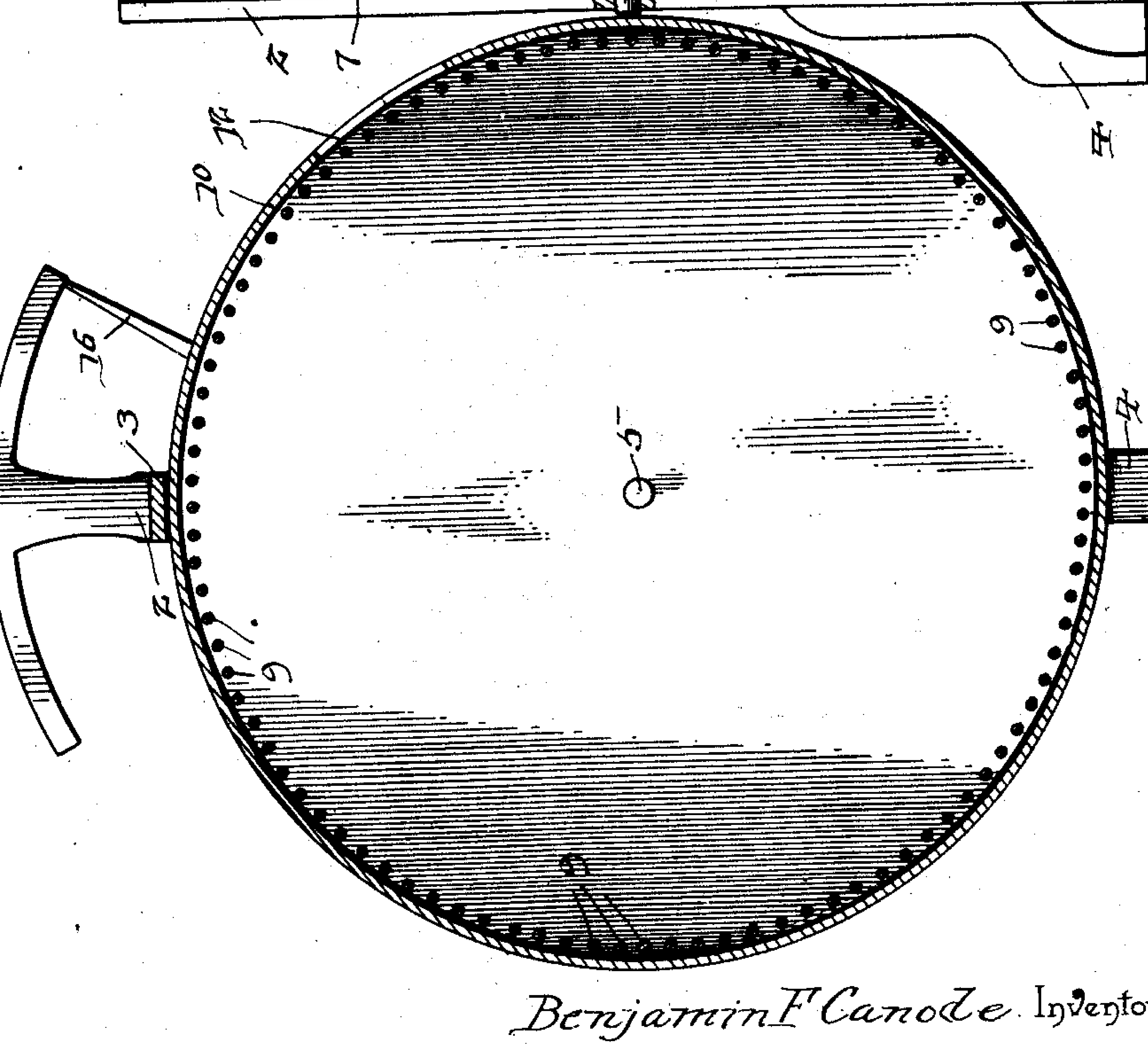

Fig. 2.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. CANODE, OF MOUNT MORRIS, ILLINOIS.

ADDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 666,599, dated January 22, 1901.

Application filed January 8, 1900. Serial No. 756. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CANODE, a citizen of the United States, residing at Mount Morris, in the county of Ogle and State of Illinois, have invented a new and useful Adding-Machine, of which the following is a specification.

The invention relates to improvements in adding-machines.

The object of the present invention is to improve the construction of adding-machines and to provide an exceedingly simple and inexpensive calculator which will be adapted to be quickly and accurately operated and which will not be liable to get out of order.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of an adding-machine constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is a vertical sectional view taken at right angles to Fig. 2. Fig. 4 is a side elevation of the adding-machine.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a supporting-frame comprising a pair of standards 2, connected at their upper ends by a horizontal top bar 3 and provided at their lower ends with blocks 4, extending outward and forming legs or feet to provide a firm support for the adding-machine. The standards are provided with bearings for a horizontal shaft 5, which carries a wheel 6, consisting of heads or disks 7 and 8 and connecting rods or bars 9, arranged at regular intervals and secured to the heads or disks at the peripheries thereof. The wheel is inclosed in a cylindrical casing 10 of sheet metal or other suitable material; but the disk or head is provided with an exposed ring 11, having a series of numbers corresponding with the connecting rods or bars and ranging from "1" to "100," the wheel being preferably provided with one hundred rods or bars; but the number may be varied, as will be readily apparent.

The casing is provided with a series of apertures 12, gradually increasing in length and adapted to permit the finger of the operator to engage and partially rotate the wheel. The aperture at the left-hand end of the series is of a length to permit the wheel to be rotated the distance of an interval between the rods or bars for registering "1," and the apertures increase regularly in length, so that the second aperture will enable the operator to add "2," the third "3," and so on. By this construction the adding-machine may be rapidly and accurately operated, and a suitable indicator 13 is provided for enabling the operator to readily tell at a glance the distance the wheel has been rotated. The indicator 13 is supported by an arm 13^a, located at the adjacent side of the wheel and secured to the adjacent upright or standard 2.

One end of the shaft carries a pinion 14, which meshes with a curved rack 15 of an indicator 16, pivoted between its ends at 17 on the adjacent standard, the curved rack being concentric with the pivot 17. The curved rack is arranged at the lower end of the pivoted indicator, which tapers toward its upper end. The upper end of the indicator moves over a curved graduated surface 18 of a curved piece 19, mounted on the standard at the upper end thereof. The indicator is adapted to register the number of revolutions of the wheel.

The registering mechanism illustrated in the accompanying drawings is adapted to indicate five rotations of the wheel or five hundred, but its capacity may be varied.

It will be seen that the adding mechanism is exceedingly simple and inexpensive in construction, that it is strong and durable and not liable to get out of order, and that the registering mechanism is simple, positive, and reliable.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. An adding-machine comprising a frame, a cylindrical casing supported by the frame, a wheel arranged within the frame and provided at one end with an exterior graduated rim located at one end of the casing and form-

ing practically a continuation thereof, a fixed indicator supported by the frame at one end of the machine, contiguous to the graduated rim, a pivoted indicator provided with a curved rack, and a pinion meshing with the indicator and connected with the wheel, substantially as described.

2. An adding-machine comprising a frame, a wheel provided at its periphery with rods or bars spaced apart and arranged to be engaged by the finger of the operator, a casing supported by the frame and provided with a series of slots varying in length and exposing the rods or bars of the wheel, an exterior rim or flange carried by the wheel and provided with an annular series of graduations arranged at one end of the casing with relation to the rods or bars, a pinion connected with the wheel, a pointer pivoted between its ends, and a curved rack arranged at one end of the pointer and meshing with the pinion, said frame being provided at the other end of the indicator with a series of graduations, substantially as described.

3. An adding-machine comprising a frame, a casing supported by the frame, a wheel, located within the casing and provided with an exterior graduated rim arranged at one end of the casing, a fixed indicator mounted on the frame and arranged contiguous to the graduated rim, a pivoted indicator mounted on the frame and arranged to move over graduations of the same and provided with a curved rack and a pinion connected with the wheel and meshing with the rack, substantially as described.

In testimony whereof I have signed my name in the presence of two subscribing witnesses.

BENJAMIN F. CANODE.

Witnesses:
A. M. NEWCOMER,
CHAS. H. CANODE, Jr.