

C. H. PLATT.
ADDING MACHINE.

(Application filed Jan. 5, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

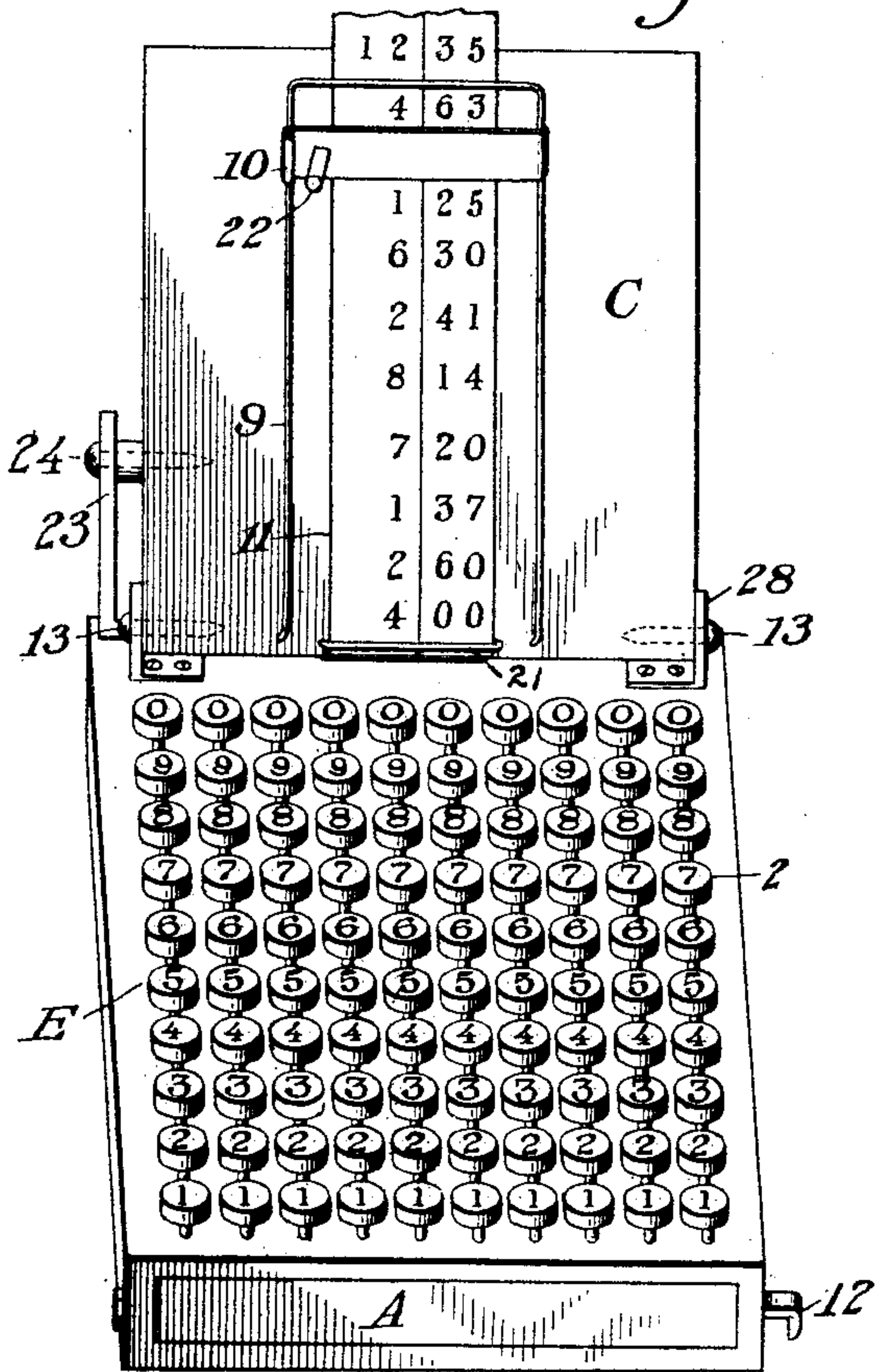


Fig. 3.

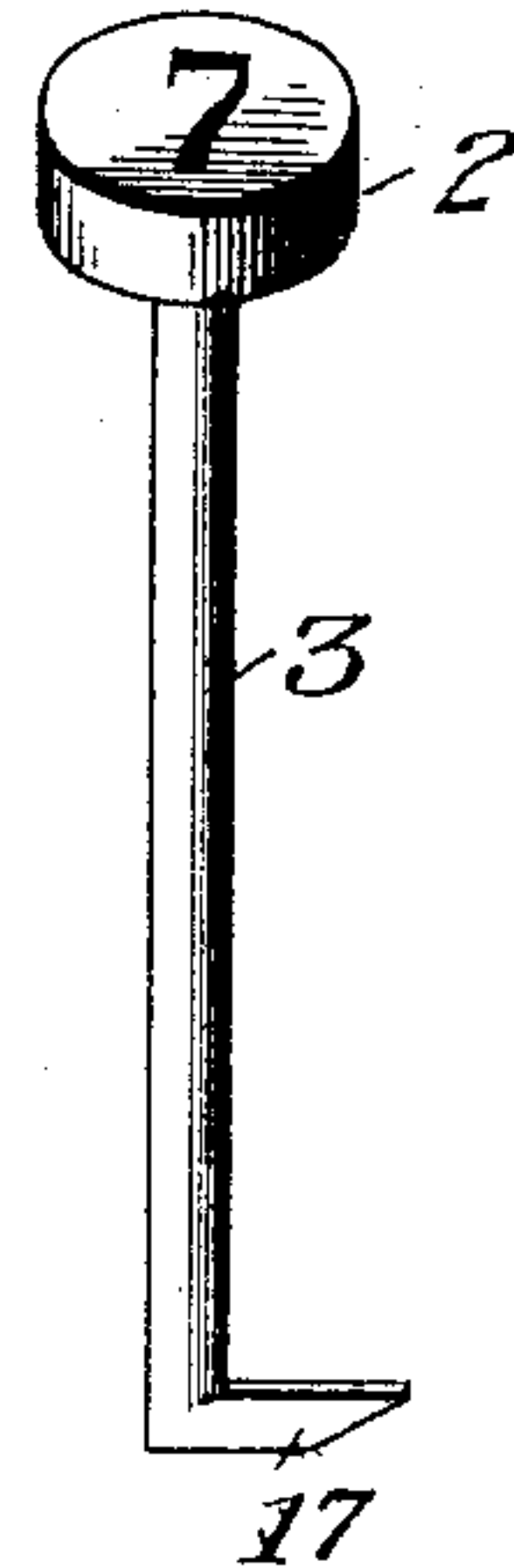
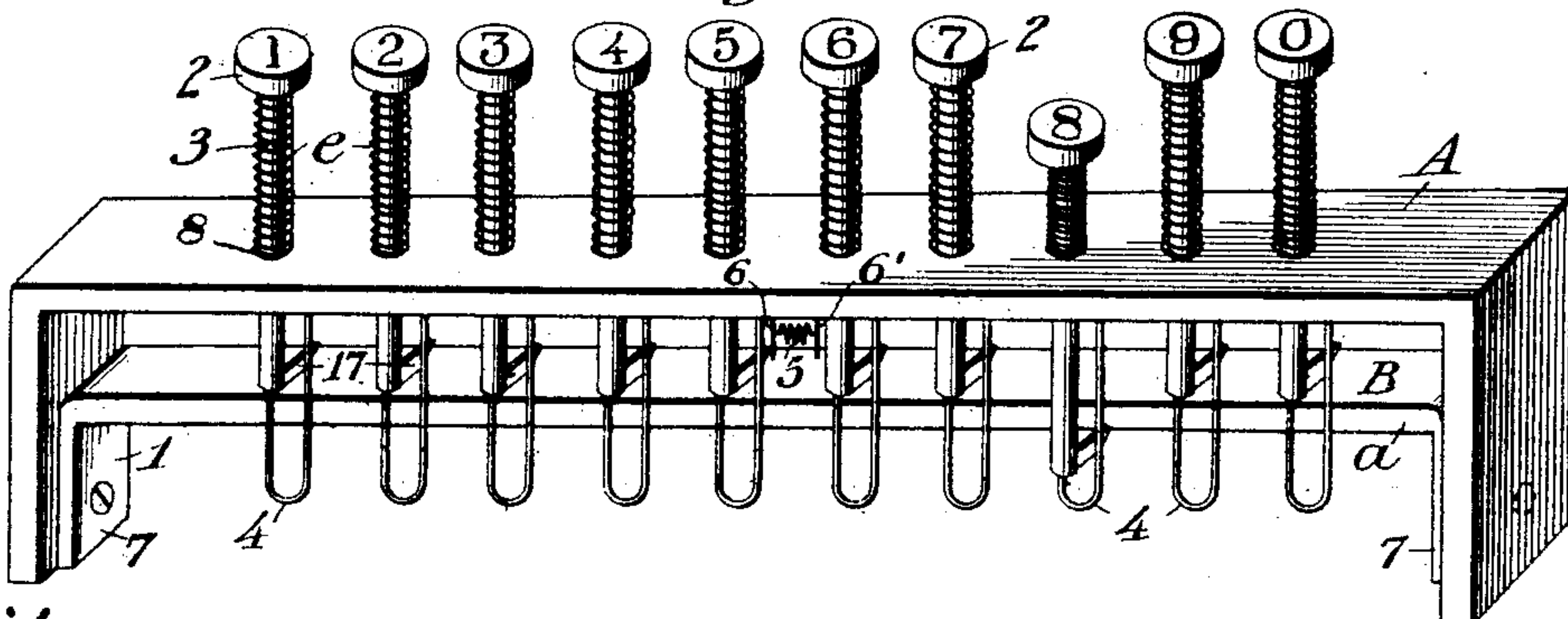


Fig. 2.



Witnesses,

W. J. Murphy
W. G. Platt

Inventor,

Corwin H. Platt

C. H. PLATT.
ADDING MACHINE.

(Application filed Jan. 5, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 4.

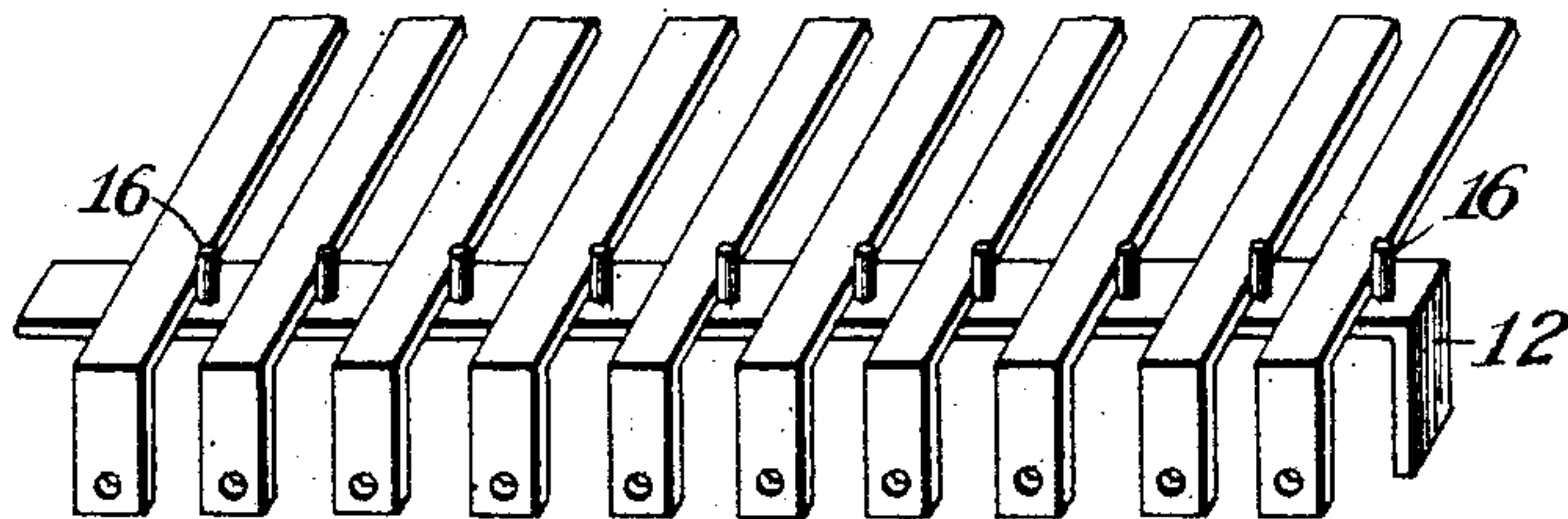


Fig. 5.

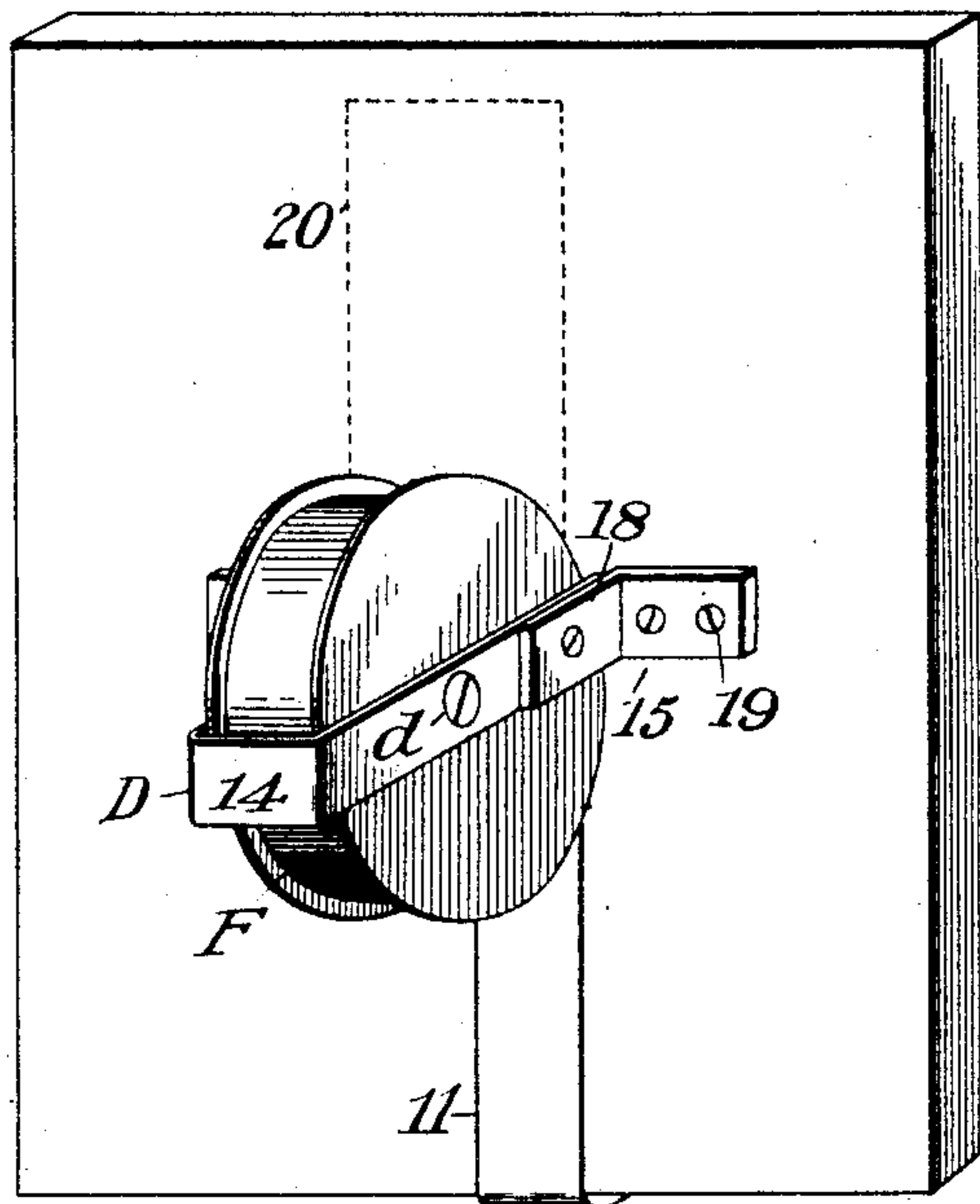


Fig. 6.

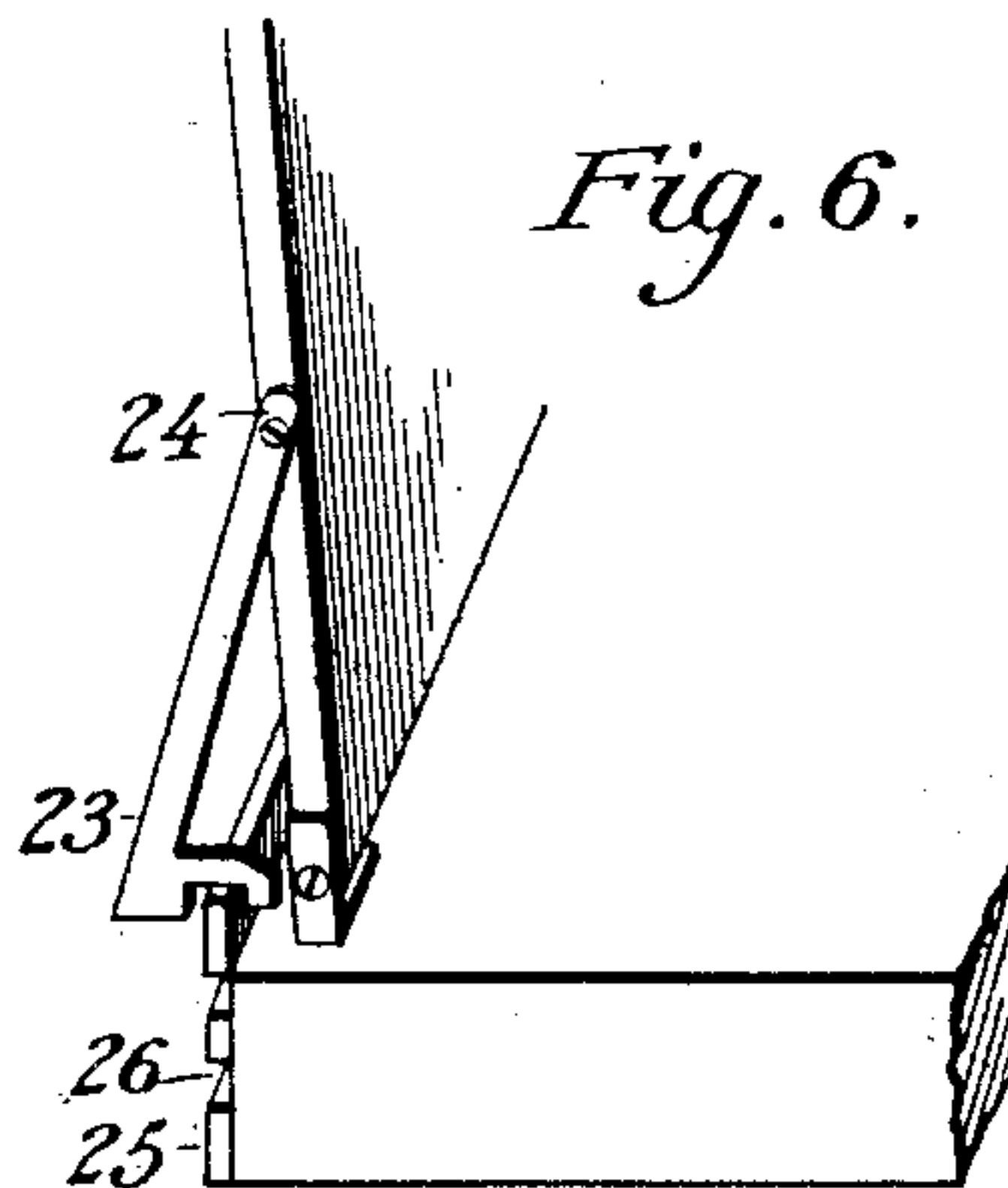
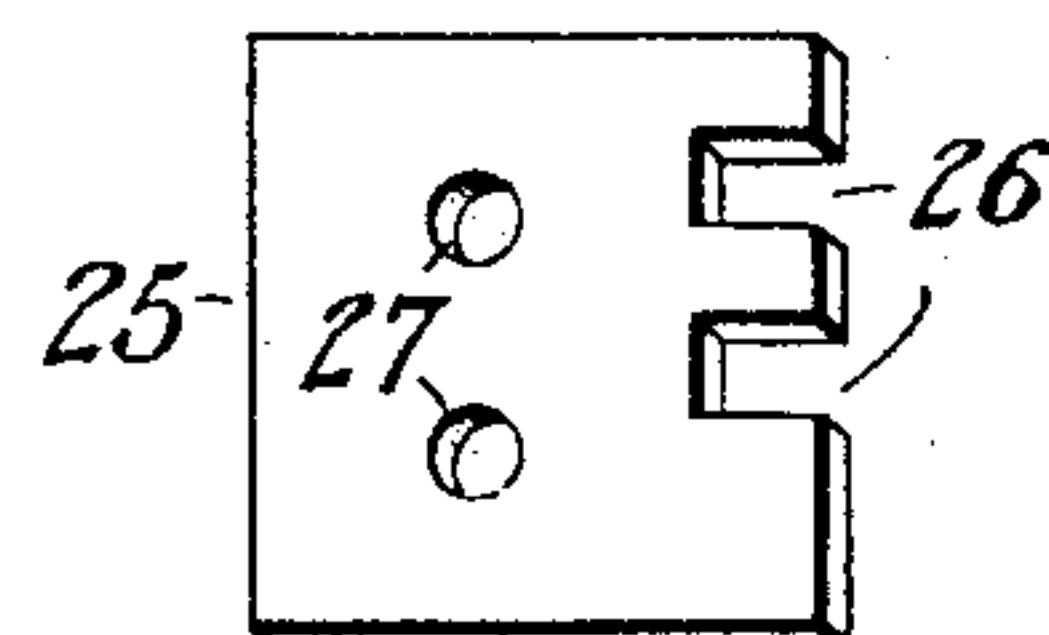


Fig. 7.



Witnesses,

W. J. Murphy
W. J. Platt

Inventor,
Corwin H. Platt

UNITED STATES PATENT OFFICE.

CORWIN H. PLATT, OF CLEVELAND, OHIO.

ADDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 696,481, dated April 1, 1902.

Application filed January 5, 1901. Serial No. 42,180. (No model.)

To all whom it may concern:

Be it known that I, CORWIN H. PLATT, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Recording-Machine, of which the following is a specification.

My invention relates to improvements in recording-machines in which mental calculation is recorded on the machine; and the objects of my improvements are, first, to record mental calculation by means of the keyboard and mechanism of this machine; second, to construct a cheap, simple, and durable recording-machine. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the machine with cover elevated or thrown back, showing the body of the machine, cover-hinges, cover-supporting lever, and keyboard. Fig. 2 is a sectional view consisting of a section of the machine-body, one row of keys, one universal bar, one set staples, one universal-bar spring with pins. Fig. 3 is a detached view of the key and stem, showing the angle on the stem. Fig. 4 is a sectional view of the universal bars, showing the releasing bars and pins. Fig. 5 is a reverse view of the hinged cover, showing the folding paper-roll holder and roll of paper. Fig. 6 is a sectional view showing the lever and lock for holding the cover in an elevated position over the keyboard. Fig. 7 is a detached view of lock for holding the "cover-lever" when the cover is elevated over the keyboard.

The principal objects in constructing this machine are to record mental work on the keyboard of the machine and to reduce the mental labor of the accountant or operator when adding or computing numbers. To accomplish these objects, the following mechanism is used, as illustrated and described in this specification.

Body or frame A may be made of wood, formed or cast from metal, as may be preferred. The body or frame is made the proper size to accommodate the number of sections to be used in the construction of the machine. The top of the body or frame is provided with series or rows of holes which receive the key-

stems 3, Figs. 1 and 2. When the top is made from wood, these series of holes are lined with metal tubing that will admit the key-stems to pass freely through them. At the rear corners of the top of the body are placed right-angular pieces of metal 28, being secured to the top of the body through holes previously prepared by means of screws, as shown.

The safety-cover C, carrying lever 23, is secured to the pieces 28 by means of screws, as shown, for the purpose of lowering the cover C over the keyboard to prevent altering the sum-total left on the keyboard during the absence of the operator. The cover C may be constructed to lock securely down when lowered over the keyboard, if so desired. Lever 23, pivoted on screw 24, is formed with a projection which engages the top of plate 25 or into notches 26 of said plate for holding the cover in a convenient position to lower over the keyboard. The plate 25 is attached to the body A by means of screws, as shown.

The bar B, Fig. 2, is angled at each end, the lower part of each angle being provided with a hole by means of which the bar is attached to the body A. The front of the bar is beveled back, as shown at *a*. This bevel admits it to be forced back when the key-stem comes in contact with the bar through depressing the key. The bar B carries the pin 6, and has an oscillating movement when attached to the body A by means of screws, as shown.

Coiled spring 5 returns the bar B when it has been forced back by depressing the key. It is attached to pin 6' on the bar and to pin 6, secured to body A, all as shown.

Stem 3 is angled, as shown at Fig. 3. This angle is beveled, as shown at 17. When the angular beveled key-stem 3 is depressed until it comes in contact with the bar B, it forces the bar back until the angle can pass below the bar for a purpose hereinafter stated.

Spring *e* is placed on the stem 3, the lower end resting on the top of the body A. The upper end rests under the key-top 2, securing the spring in position, as shown. The spring *e* returns the angular key-stem after it is released from the bar B to its normal position on the keyboard.

Staple 4, Fig. 2, is secured to the under side of the top of the body A by driving it into holes prepared for it in the body. It is so

placed that it will prevent the key-stem 3 from turning in the hole 8 in the body A.

The key mechanism of this machine, as shown, is necessarily built in sections, each section consisting of one set of key tops, stems, springs, one universal bar, one universal-bar spring with pins, and one set of staples.

The operation of a section is as follows: When a key in the section is depressed, it comes in contact with the universal bar, forces the bar back until the angle on the stem passes below the bar. The universal bar is then drawn forward by the universal-bar spring on the angle of the key-stem, holding the key down in the section. If another key in this section is depressed, the first key will be released and the second one held down, as above stated. The operation is the same in any number of sections that may be assembled in a machine. A section will add and register nine, (9.) Above this number two sections must be used. To register above ninety-nine, (99,) three sections must be used. In the same manner all the sections are used until the limit of the machine is reached.

The following "rule" will allow the machine to be operated accurately:

Rule: Set up the first amount on the keyboard of the machine, (beginning at the left of the amount,) always ending the amount at the right-hand or units column of the machine. To this amount set up on the keys of the keyboard add the next amount to the keys set up on the keyboard, registering the sum of the amounts with proper keys, adding units to units, tens to tens, &c. Continue the operation until all amounts desired are added or the limit of the machine is reached. Always carry ten (10) in the lower order to the keys of the next higher order.

In operating this machine the amounts are handled from left to right, the same as usually written down. By this method no number larger than nine (9) ever is added to the keyboard and no tens greater than one (1) carried to the next higher order. At each addition the sum-total is left complete on the keyboard, (and can be copied with pen, pencil, or

type-writer,) whereas in the old method of adding in vertical columns the carrying of the tens mentally is very laborious and also very unreliable when large amounts and long vertical columns are to be added. Both hands of the operator are brought into use in using this machine, the same as in type-writing, and with the same amount of practice on this machine that is given to a writing-machine a high rate of speed can be obtained by the operator.

The mechanism of this machine being so very simple it is almost an impossibility for the machine to get out of order, thereby rendering the work of the operator practically infallible. In adding large amounts and proving trial balances this machine will prove a valuable assistant.

I am aware in constructing this machine I am using parts used on various other machines—viz., key tops, stems, springs, universal bars, &c. I therefore do not claim these parts broadly, but

What I do claim, and desire to secure by Letters Patent, is—

In recording-machines, (for mental calculation) the combination of the herein-described improvement, comprising the body A provided with series or rows of holes, to receive the key-stems 3, the bars B attached to the body A permitting of an oscillating movement of the bars, by means of the angular key-stems 3 and returning-spring 5, the spring 5 attached to pins 6' 6, staples 4 attached to the body A, the angular key-stem 3 provided with the bevel 17 and key-top 2, the spring e actuating the angular key-stem 3 and key-top 2; for the purpose of constructing a recording-machine, whereon, by mechanically holding down keys after depression, a visible total (of mental addition) is recorded and shown by the keys on the keyboard of the machine all substantially as set forth.

CORWIN H. PLATT.

Witnesses:

W. G. PLATT,
O. E. HULL.