

(No Model.)

2 Sheets—Sheet 1.

W. C. MCGILL.

CASH REGISTER.

No. 345,247.

Patented July 6, 1886.

Fig. 1.

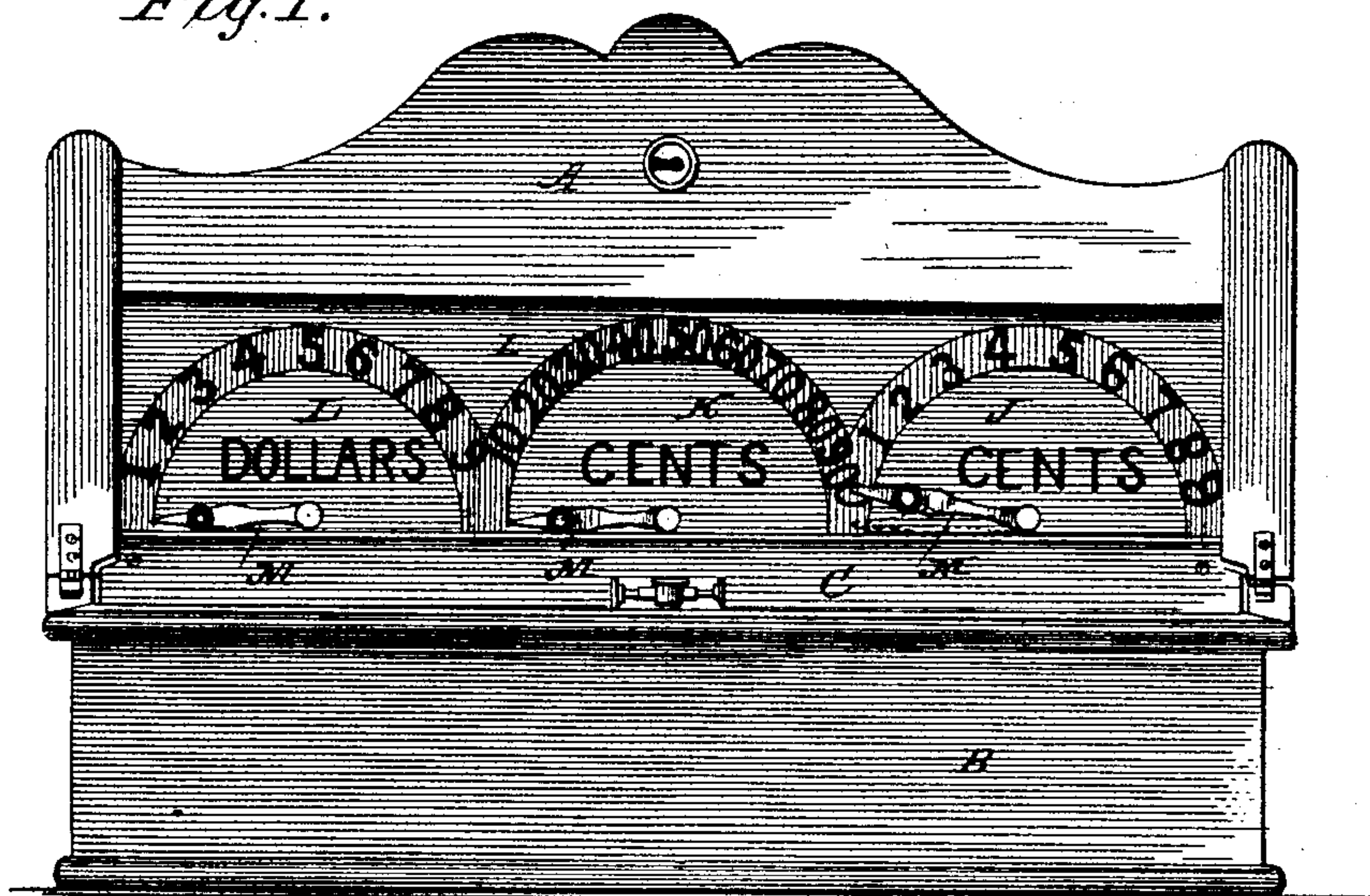
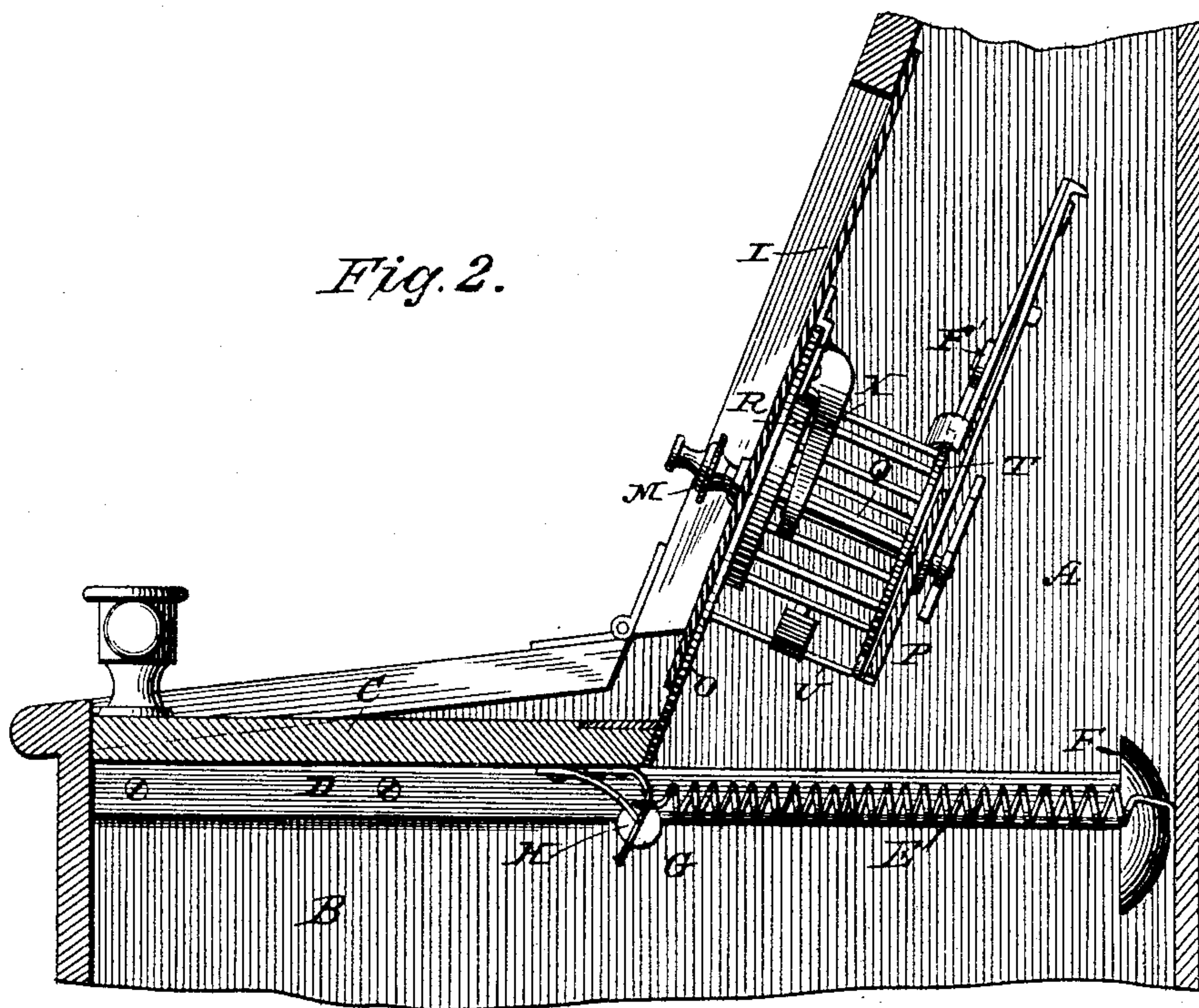


Fig. 2.



WITNESSES:

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INVENTOR

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(No Model.)

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Fig. 3.

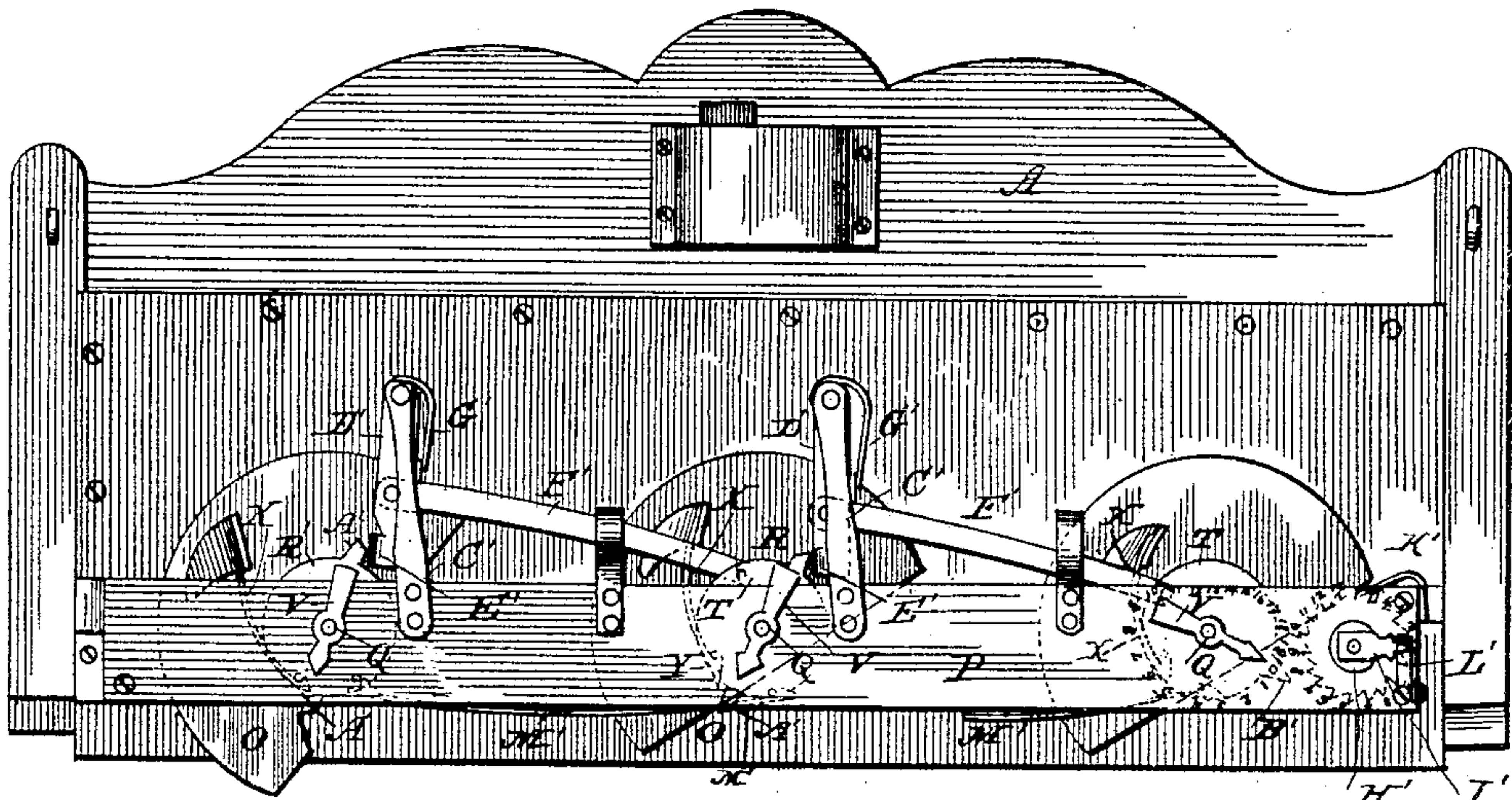


Fig. 4.

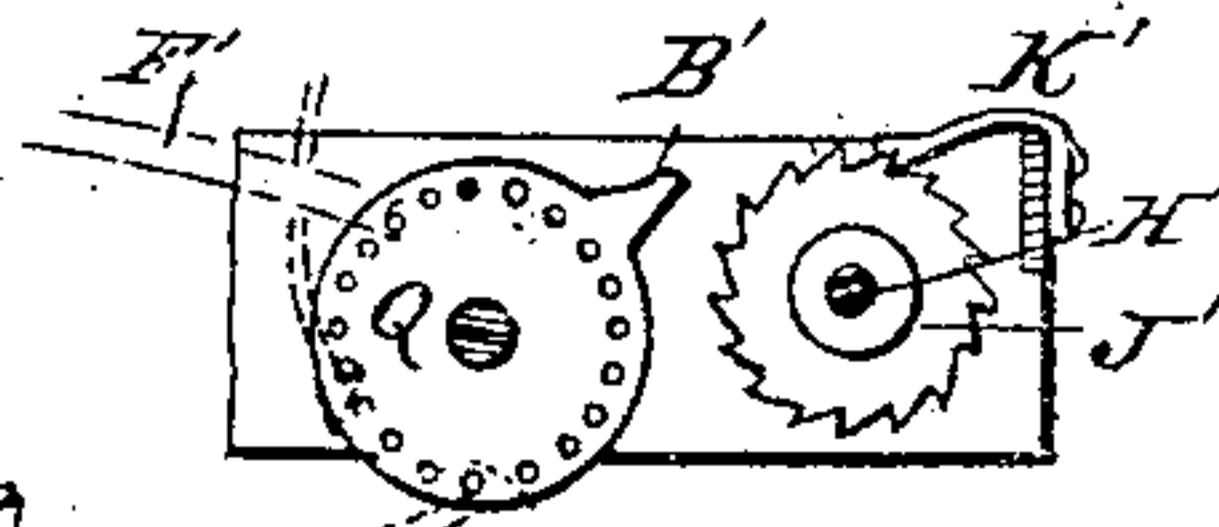
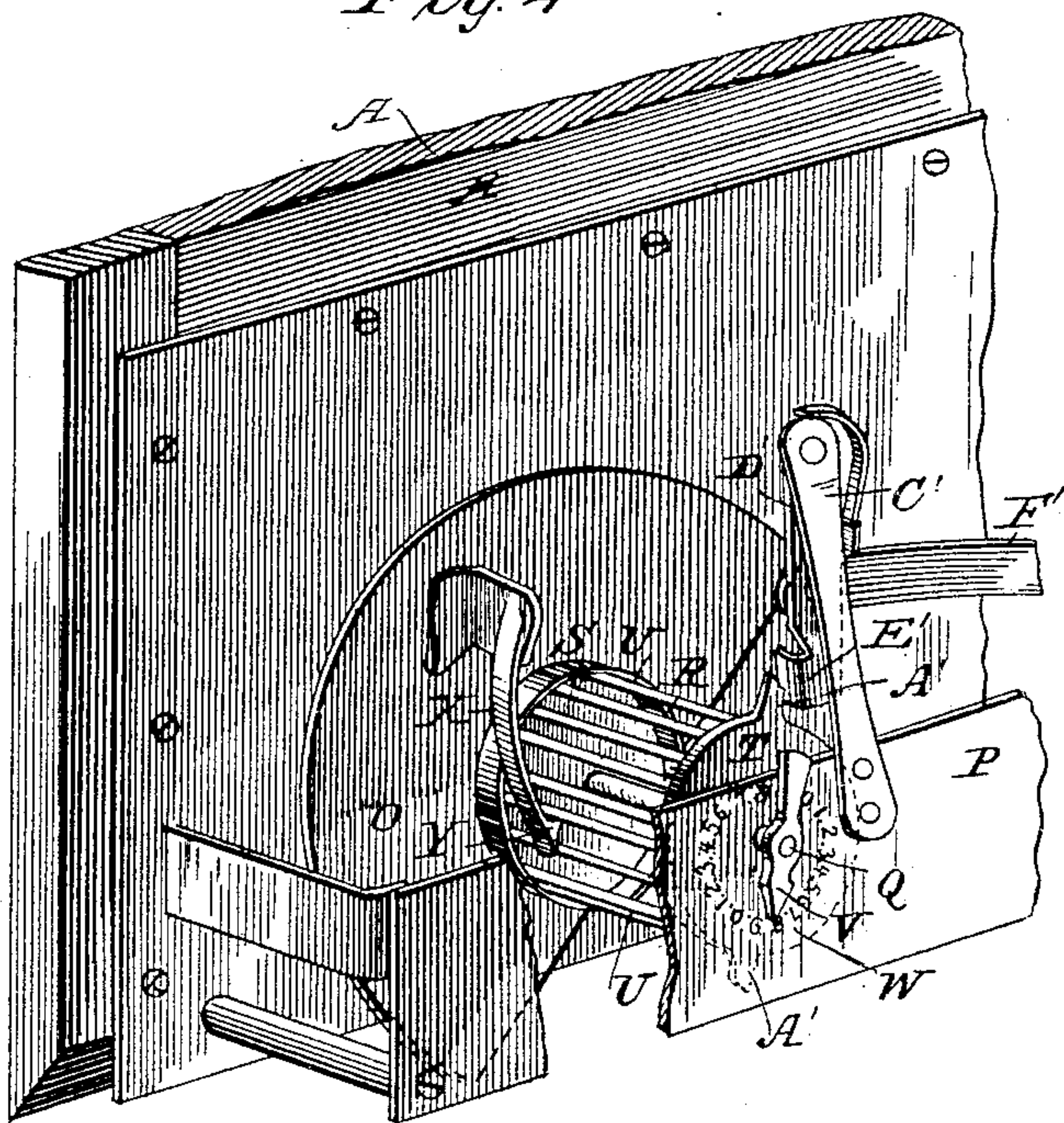
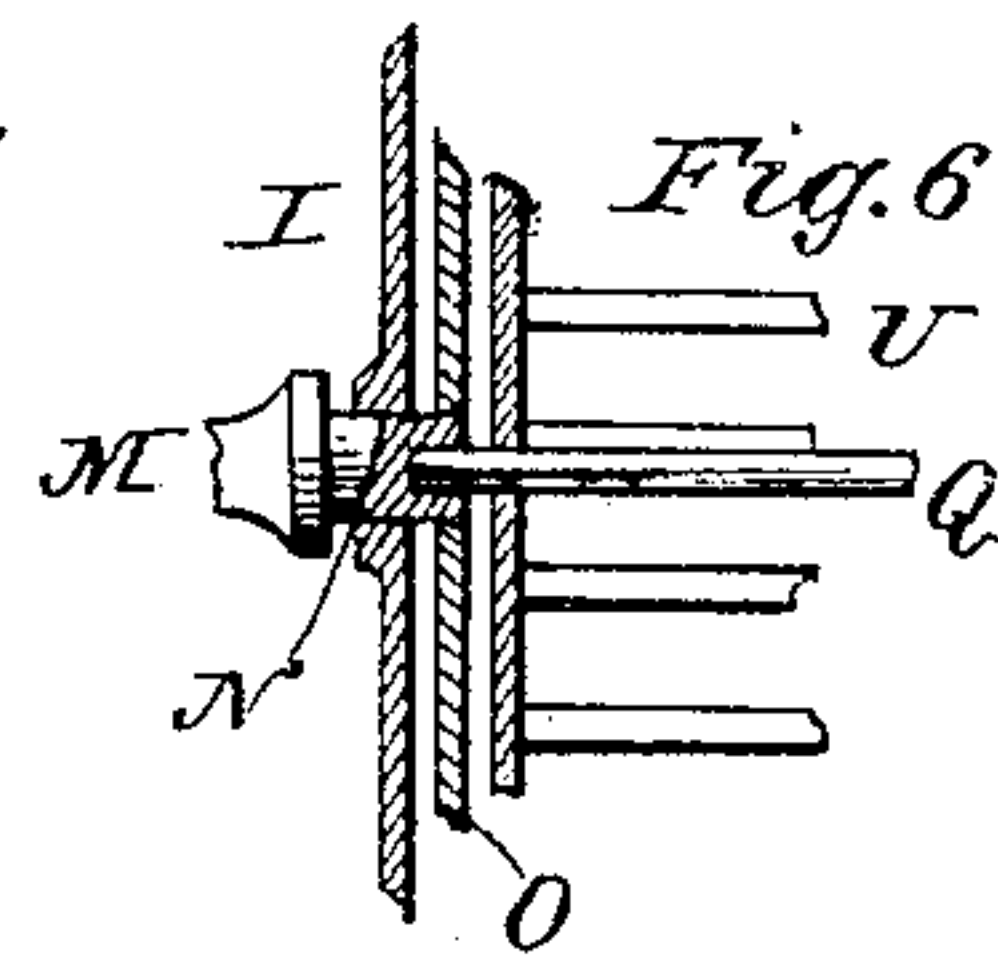
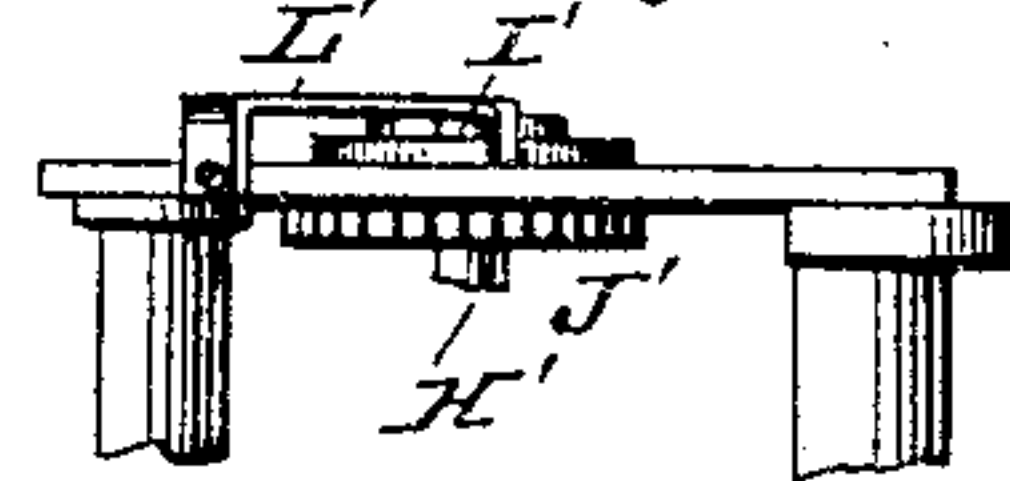


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM C. MCGILL, OF WASHINGTON, DISTRICT OF COLUMBIA.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 345,247, dated July 6, 1886.

Application filed March 19, 1886. Serial No. 195,842. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. MCGILL, a citizen of the United States, residing at Washington, in the District of Columbia, have
5 invented certain new and useful Improvements in Cash-Recorders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains
10 to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention consists in the improved construction, arrangement, and combination of
15 parts of a cash-register, as will be hereinafter fully described, and pointed out in the claims.

Referring to the annexed drawings, Figure 1 is a front elevation of my improved cash-
20 register. Fig. 2 is a transverse vertical sectional view taken on line *xx*, Fig. 1, of the drawings. Fig. 3 is a rear view of the registering mechanism. Fig. 4 is a perspective detail view of part of the registering mechanism, with a portion of the supporting-frame
25 broken away. Fig. 5 is a detail view of a portion of the registering mechanism, the nature of which will be hereinafter described; and Fig. 6 is a sectional view through the
30 forward end of one of the drum-shafts and the hollow end of the axle in which it is seated.

The same letters of reference indicate the same or corresponding parts in all the figures.

Referring to the several parts by letter, A
35 represents the main frame of my improved cash-register, the lower forward portion of which is extended to form the cash-box or money-receptacle B, the top opening of which is normally closed by the sliding cover or lid
40 C, which slides on the supporting-ways D, which preferably incline slightly downward toward the back of the frame. To the inner lower side of the back of the casing are secured by one of their ends the leaf-springs E
45 and the central alarm-bell, F, the free portions of these springs passing around or in front of downwardly-projecting guide-arms G on the rear edge of the sliding lid C, and one of the
50 springs having on its free end a hammer, H; and it will be seen that when the lid is unlocked, as hereinafter described, the said

springs will draw the lid open and at the same time sound the bell F.

I indicates the forward inclined side of the register, on the outer face of which are arranged the three semicircular scales J K L, 55 the semicircular scales to the right hand being marked from "0" up to "9," and representing cents, the next or central scale representing dimes, being graduated in tens, from ten cents 60 up to ninety cents, and the third or last scale representing dollars, and being graduated from 1 up to 9, as shown.

M indicates the index-hands of each of the semicircular scales, each of the said hands 65 being mounted on a short shaft, N, which passes through the forward side, I, of the casing, and has rigidly secured on its inner end a semicircular locking-plate, O, so arranged on the shaft with reference to the index-hand 70 that when the said hand is turned down in a horizontal position below the first figure of its respective scale in what I will call its "open" or "unlocked" position, the semicircular locking-plates are swung up above the lower edge 75 of the front side of the casing, so as to permit the lid of the money-receptacle to open the first index-hand, which indicates "cents," being normally turned up to the "0" at the beginning of its scale, so as to bring one end of 80 its semicircular plate down to lock the sliding lid in its closed position, which of course is the position which it normally occupies.

P indicates a longitudinal frame, which is secured to the inner side of the forward side, 85 I, of the casing, and in this longitudinal frame are journaled the rear ends of three transverse shafts, Q, on each of which is mounted a drum, R, consisting of the two heads S and T, connected by the equidistant spokes U, 90 which are twenty in number, to each drum, and the forward ends of these drum-shafts are mounted in the hollow rear portions of the index-hand shafts N, as shown in the detail view, Fig. 6, of the drawings. The rear ends 95 of the drum-shafts extend through the supporting-frame P, and have each secured thereto a registering-hand, V, which travels around a circular scale, W, on the rear side of the frame P, the circular scales which indicate 100 the cents and dimes running from 0 to 9 twice, so that the registering-hand passes over twenty

spaces in making one complete revolution, while the circular scale, which indicates the dollars, runs from 0 to 19, making also twenty spaces in the circle. It will be seen that the number of points in each scale correspond to the number of spokes in each drum. Each semicircular locking-plate O has secured to it the upper end of a spring-pawl, X, having an upwardly-inclined hook, Y, at its lower end, and these pawls are so proportioned with reference to the outside index-hands, M, that for each space, from number to number, that the said hands are moved the hooked free ends of these pawls will pass over one of the equidistant spokes of its respective drum.

The two drums which operate to indicate cents and dimes have their inner heads formed with the two diametrically-opposite lugs or projections A' A', which coincide exactly with the ends of the registering-hands V, while the inner head of the drum, which acts to indicate dollars, is formed with only one lug, B', which also coincides with the point of its registering-hand.

The longitudinal supporting-frame P is provided with the two rigid upright arms C', to the upper ends of which are pivoted the upper ends of vertical levers D', having each at its lower end the arm E', extending at right angles, and with which the lugs of the inner heads of the drums, which respectively operate to indicate cents and dimes, engage, thereby pushing forward the said lower ends of these vertical levers D', and to each of these levers is pivoted, near its lower end, one end of a horizontal lever, F', the free end of which is notched to adapt it to engage with one of the spokes of the drum with which it comes in contact. The pivoted levers F' are thrown back into their normal positions, after the passage of the lugs on the drum-heads, by the springs G', which actuate the vertical levers D', and through them the horizontal levers F'.

Near the left-hand part of the supporting-frame P is journaled a short transverse shaft, H', journaled in and extending through the said frame-piece, having on its inner end a registering-hand, I', which travels around a scale marked from "0" to "19," and the outer end of this shaft H' is provided with a ratchet-wheel, J', having twenty teeth, which are adapted to be engaged by the projecting lug B' of the drum, which indicates dollars, a spring-pawl, K', preventing back movement of this ratchet-wheel.

L' indicates a spring-catch, with the arm of which the registering-hand I' engages when it reaches the numeral 19, and which must be raised by hand before the said hand can pass from 19 to the 0 upon the scale, for the purpose hereinafter set forth.

M' M' M' represent spring-pawls, which prevent back motion of the several drums.

The operation of my improved cash-register is as follows: The lid of the money-draw being closed and the several registering-hands stand-

ing at 0 on their respective scales, the drawer is locked in its closed position by raising the index-hand of the cents scale to the character 0, which locks the lid without registering anything. Now, when a sale of, say, five cents is made this index-hand is pressed down to free the lid, which is drawn open by its springs, which at the same time sound the bell, and on closing the lid the index-hand is turned up to the figure 5, indicating five cents, thereby swinging the locking-plate around to lock the lid in its closed position, and by this movement of the locking-plate the hooked end Y of its spring-pawl X passes over five rounds of the drum, which indicates cents, thereby putting the mechanism in position to indicate the amount deposited in the box, which is not done, however, until the lid is again opened. When the next sale, say of seven cents, is made, the index-hand is first swung down to open the lid in order to deposit the money in the drawer, and this downward motion of the said hand will, as will be readily seen, turn the drum and its registering-hand through the spring-pawl of the locking-plate for five spaces, thereby registering five cents on the register-scale. On closing the lid after depositing the seven cents, the index-hand is moved up to 7 on the scale, and it will be seen that when the hand is again turned down to permit the lid to be opened the drum and its registering-hand will again be moved for seven spaces in the manner before specified. As the registering-hand passes from the figure 9 to 0 on the scale one of the projecting lugs A' of the drum-head will come in contact with the arm of the vertical lever D', thereby moving the said lever and the horizontal lever which is pivoted to it, and the free end of the said horizontal lever pressing against one of the rounds of the dime-registering-drum will turn the said drum and its registering-hand for one space, while the cent-registering hand will pass to the figure 2, thereby registering one dime and two cents for the twelve cents deposited in the cash-drawer. When the dime-registering hand passes from 9 to 0, the projecting lug on its drum-head will in a like manner operate through the second series of pivoted levers to turn for one space the drum and registering-hand which register dollars. It will be seen that dimes and dollars can be registered directly through their index-hands and locking-plates in the same manner as cents are registered. When the dollar-registering hand has registered nineteen dollars and is passing from 19 to the figure 0, which will make twenty, the projecting lug of its drum-head will engage with one of the twenty teeth of the ratchet-wheel J', turning the said wheel and its registering hand for one space, each space registered by the said hand thus indicating twenty dollars, and when the said hand reaches the number 19 on its scale it comes in contact with the arm of the catch L', which prevents its further movement, and the said catch must be lifted by the proprietor (who is the only person who has

access to the registering mechanism) before any one of the locking-plates can be raised to open the drawer after they have reached the 9 on their respective scales. This spring-catch 5 will effectually prevent any dishonest person from taking money from the drawer and turning the registering mechanism until it indicates the reduced amount thus left in the drawer, which might easily be done were it 10 not for this spring-stop.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the cash-receptacle, 15 of a short shaft provided at the outer end with the index-hand, and at its inner end with the locking-plate carrying the spring-pawl, and the drum having the equidistant spokes, with numbers corresponding to the numbers on the 20 front dial, substantially as described.

2. The combination, with the cash-receptacle, of the sliding lid, the spring to operate said lid, the bell F, the register, and the pivoted locking-plate O, to lock said lid, arranged to op- 25 erate substantially as set forth.

3. The combination, with the cash-receptacle, of three or more semicircular scales indicating, respectively, cents, dimes, and dollars, the sliding lid, the short shafts, having at their outer end the index-hands, and locking plates, 30 arranged to operate as set forth.

4. The combination, with the cash receptacle, of a drum having equidistant spokes provided with numbers corresponding with the numbers on the front dial, the stop L', arranged to 35 hold the ratchet-wheel on its reaching its last projection, and a short shaft provided with a locking-plate and spring-pawl at its inner end, and at its outer end with numbers corresponding with the numbers on the drum, sub- 40 stantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WM. C. MCGILL.

Witnesses:

FRED G. DIETERICH,
J. F. REILY.