

(No Model.)

2 Sheets—Sheet 1.

C. McNABB.
CASH REGISTER.

No. 591,176.

Patented Oct. 5, 1897.

FIG. 1.

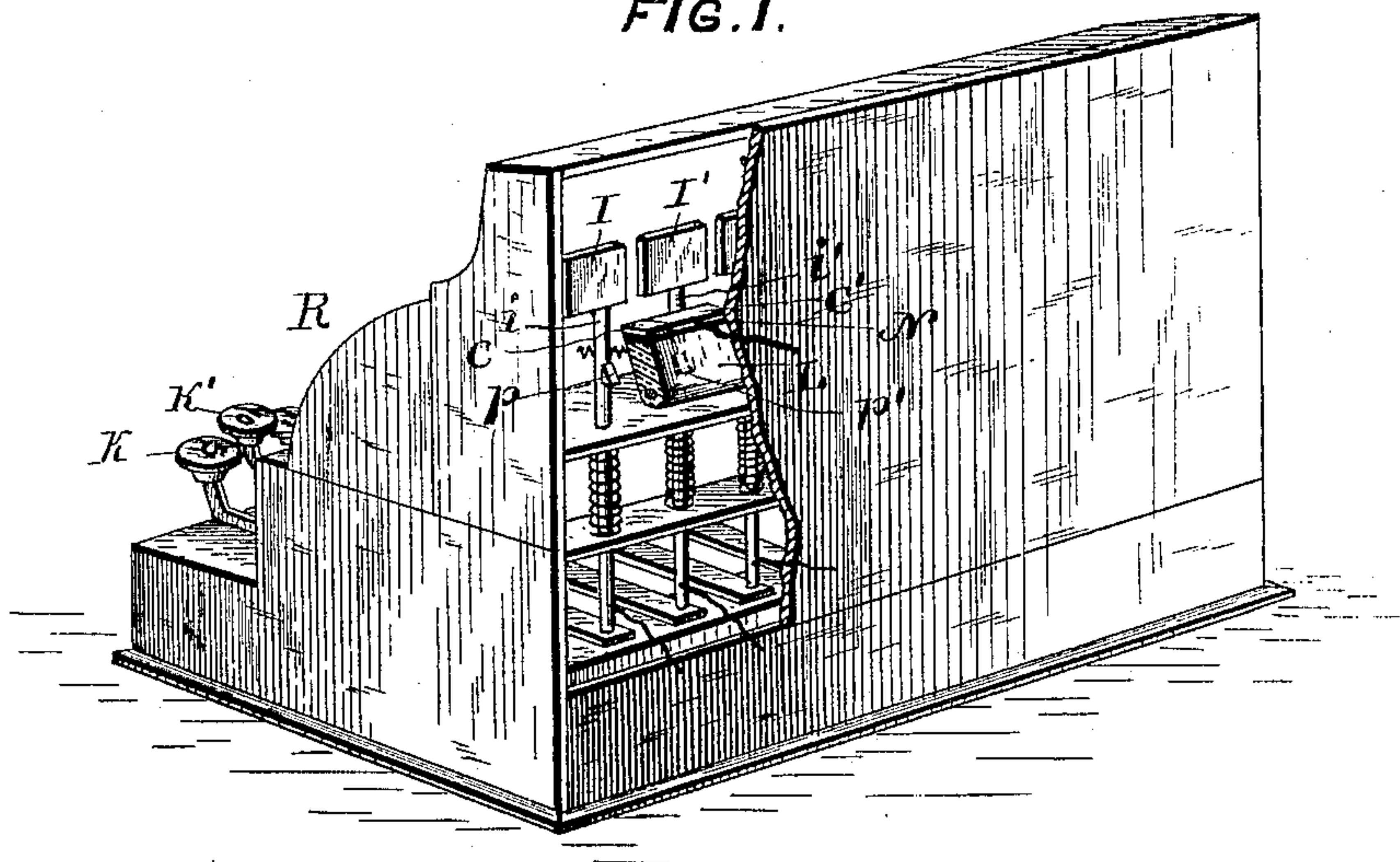


FIG. 2.

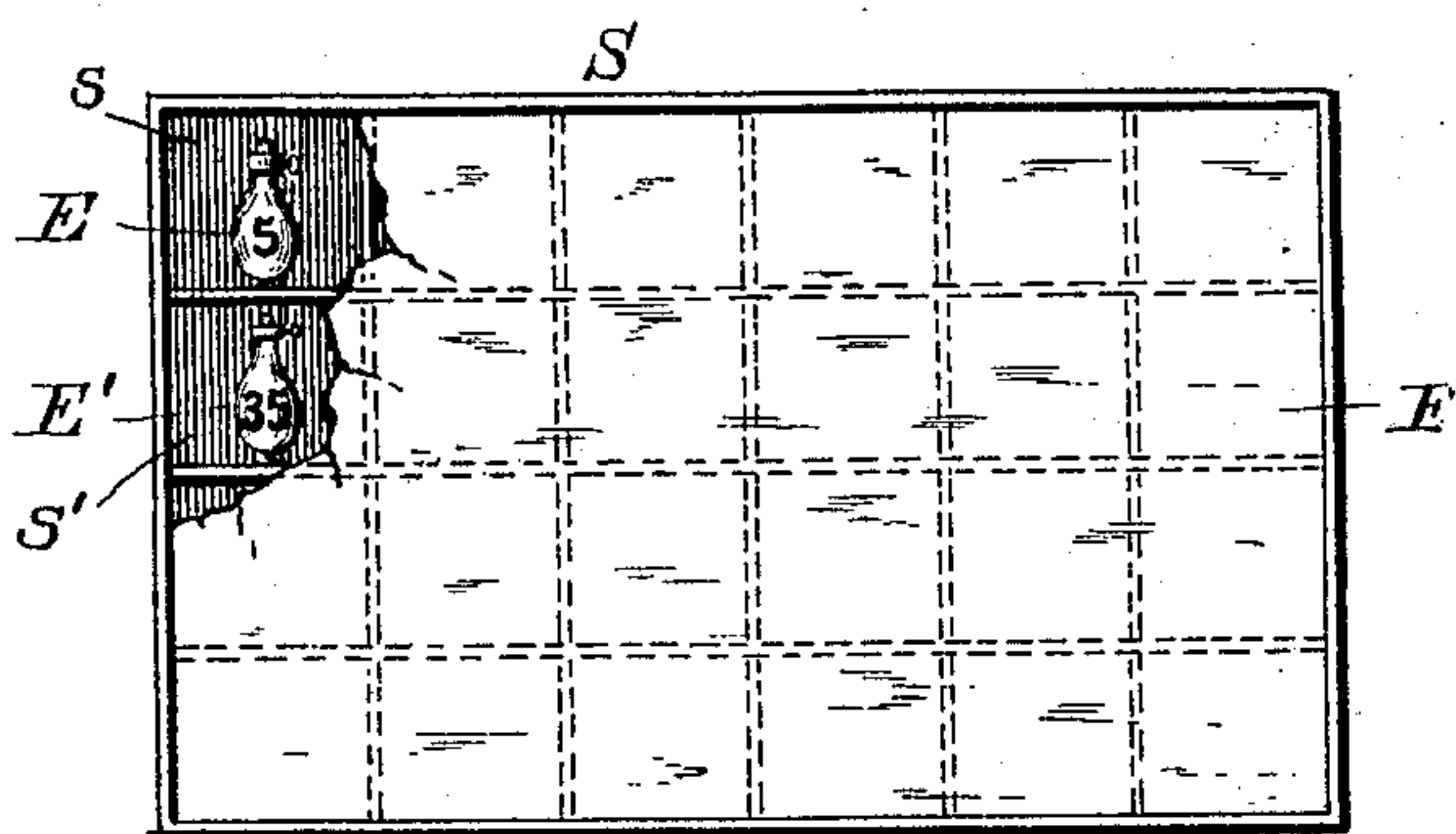
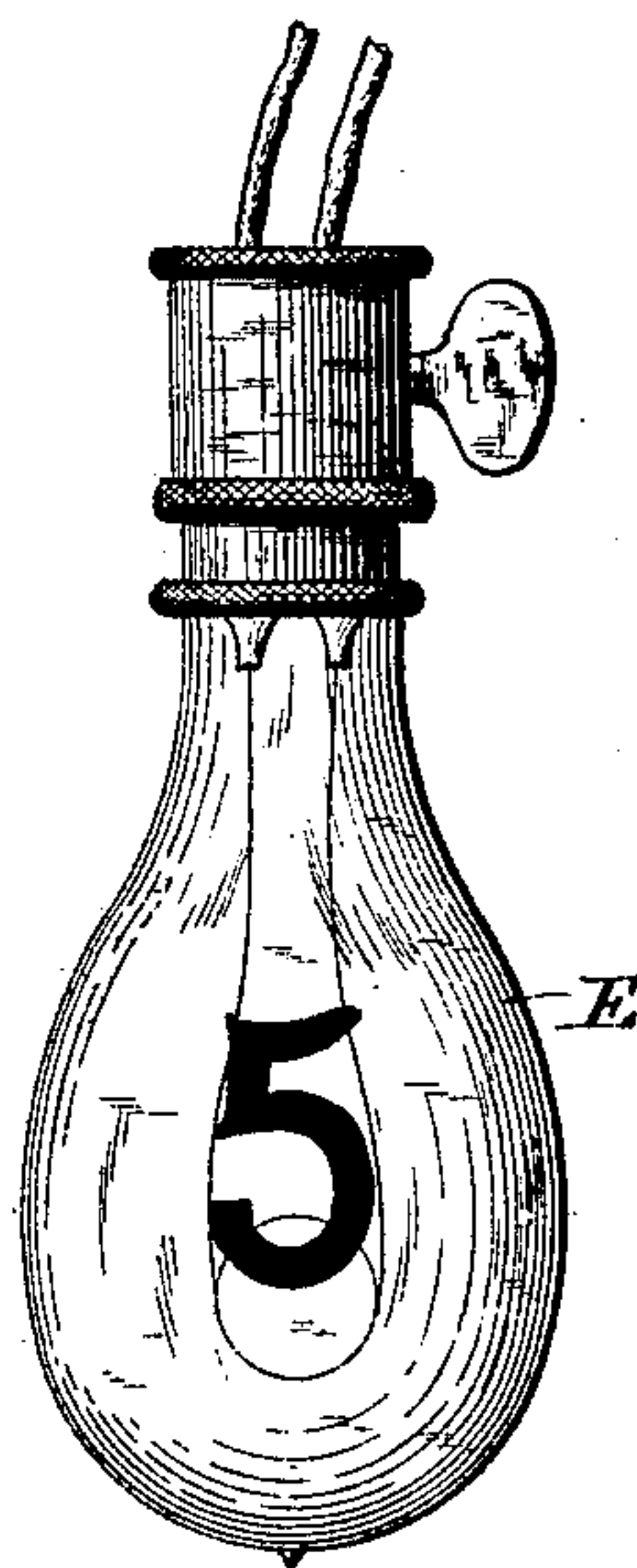


FIG. 5.



ATTEST.

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FIG. 4.

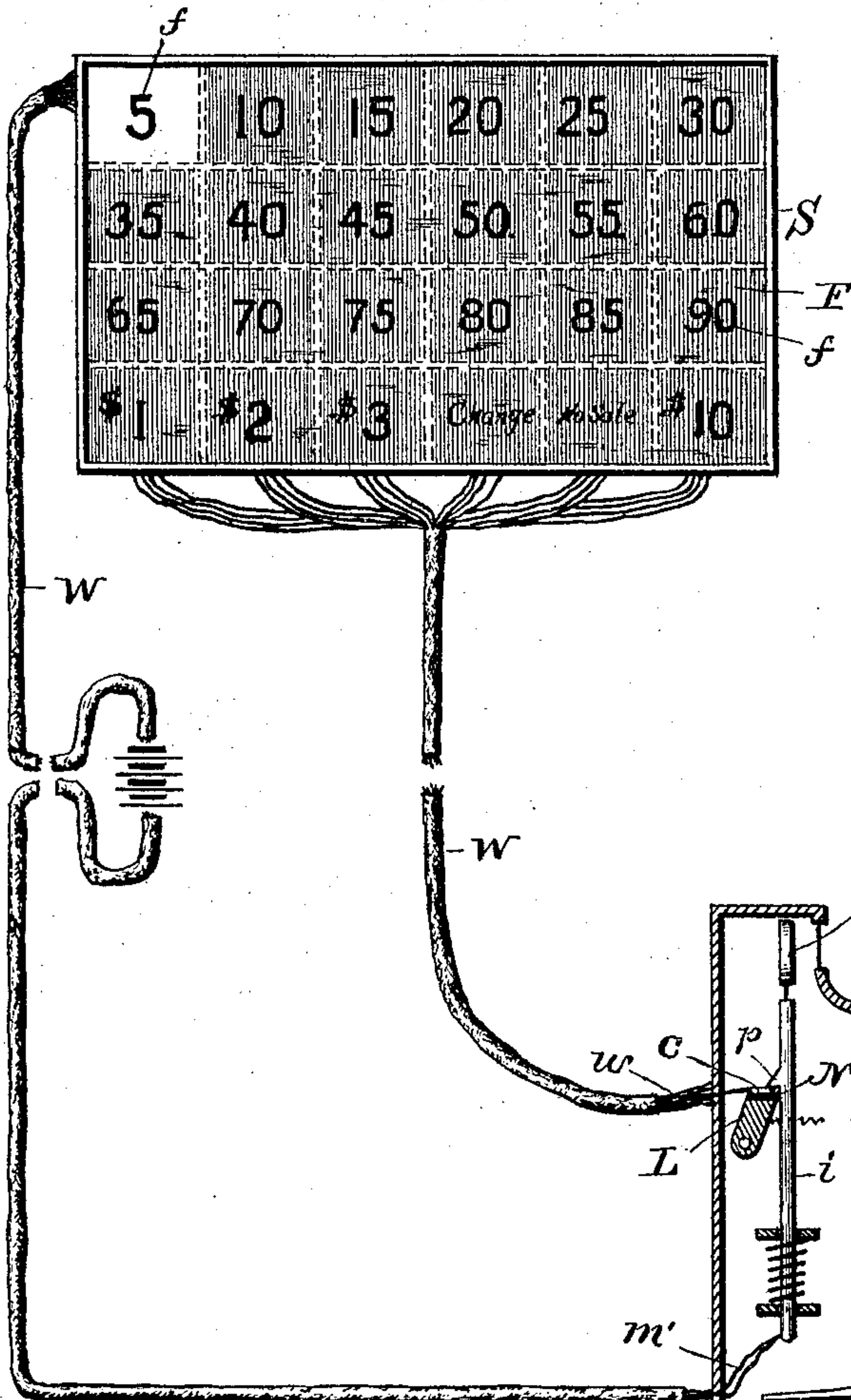
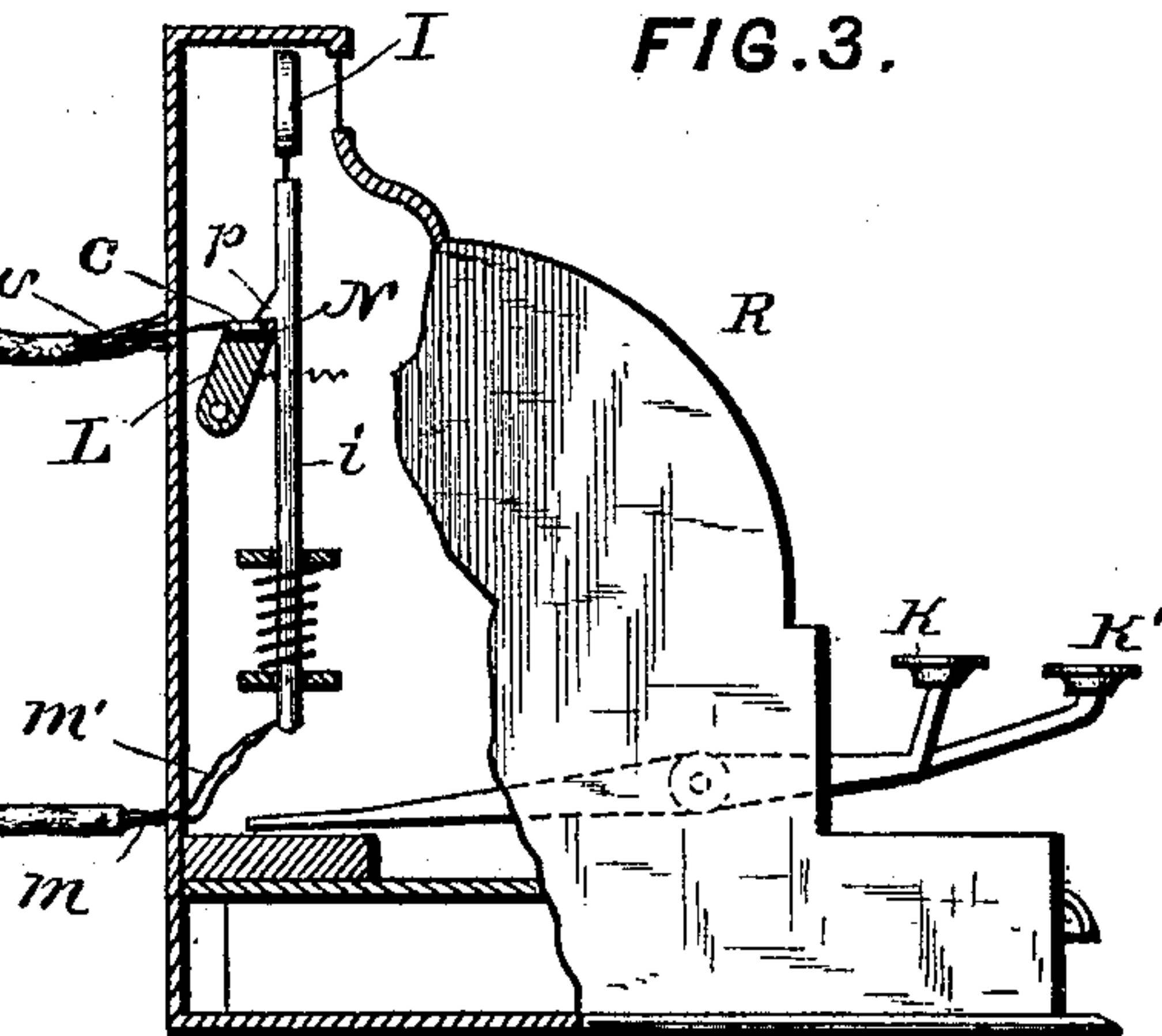


FIG. 3.



ATTEST.

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UNITED STATES PATENT OFFICE.

CHARLES McNABB, OF KNOXVILLE, TENNESSEE.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 591,176, dated October 5, 1897.

Application filed March 5, 1897. Serial No. 626,082. (No model.)

To all whom it may concern:

Be it known that I, CHARLES McNABB, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented certain new and useful Improvements in Cash-Registers; 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 to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The purpose of my invention is to provide a mechanism whereby the amounts indicated on and registered by a cash-register of the usual type may be automatically communicated to and registered or indicated at any desired point. In furtherance of this purpose, on the top of a lateral bar which supports the indicators when they are displayed, or what I term the "indicator-carriage" of a cash-register of the usual well-known form, I attach in any well-known manner small plates, preferably of copper, which are carefully insulated from said indicator-carriage and from each other, each of the plates being so arranged as to engage the projection on the rod of some particular indicator when the same is displayed in the well-known manner, being preferably so located that when an indicator is elevated by the action of its appropriate key the projection on its indicator-rod, which, when the indicator is displayed, is normally engaged directly on the said indicator-carriage, is mounted on one of the said copper plates, each of said plates forming a part of a circuit upon which is an incandescent lamp, the lamps being arranged in a cabinet of any desired shape and each lamp in a compartment to itself. The face of each compartment is constructed, preferably, of glass, and thereupon is painted or otherwise portrayed a number or symbol corresponding to the number or symbol on the cash-register indicator, with the projection on the rod of which is engaged the copper plate in circuit with the lamp in the particular compartment. It follows, therefore, that if a five-cent purchase is registered when the proper indicator is displayed in the usual

manner the projection on the rear of the indicator-rod engages upon the copper plate on said indicator-carriage, the indicator-rod and the projection thereon being of iron or steel, and the register itself being a good conductor and properly grounded in any well-known manner it follows that upon the contact of the projection on the indicator-rod with its respective copper plate a circuit is closed through the register and the incandescent lamp in circuit with the particular copper plate which is engaged with the five-cent indicator, whereby the lamp in the corresponding compartment of the cabinet becomes incandescent in the usual manner, thereby illuminating or bringing into relief the number or symbol of its appropriate compartment.

In the accompanying drawings, Figure 1 is a perspective view of an ordinary cash-register provided with the insulated plates, &c., hereinafter to be more particularly described, the rear casing of the register being broken away the better to illustrate the portions of my device contained therein. In this figure a key is shown partially depressed, the indicator-carriage being thereby detracted and disengaged from all the indicator-rods in the well-known manner. Fig. 2 is a front elevation of the electric-lamp cabinet, a feature of my device, the face of one of the compartments being broken away, showing the incandescent light contained therein. Fig. 3 is an end view, partly in section, the key having been fully depressed and resumed its normal position, and the projection on the rod of the corresponding indicator is in contact with its appropriate copper plate. Fig. 4 is also a front elevation of the electric-lamp cabinet, the number on the glass front of one of the compartments being in relief because of the closing of the circuit through the lamp behind it. Fig. 5 is a detail showing a symbol upon a lamp, a modification of that portion of my device shown in Figs. 2 and 3.

Similar reference-letters indicate corresponding parts.

In the drawings, R is a cash-register of the well-known type provided with the operating-keys K K', the indicators I I', and the indicator-carriage L, upon which the indicators I I' are adapted to be mounted by means of the projections p p' on the indicator-rods i i'.

To the indicator-carriage L is attached the copper plates $c c'$, which are insulated from said indicator-carriage L and from each other by the non-conducting material N, each of said copper plates $c c'$ being in circuit with one of the incandescent electric lamps E E' contained within the compartments $s s'$ of the cabinet S. The compartment s is provided, preferably, with the glass front F, upon which is a number or symbol f . The wires w , connecting the copper plates $c c'$ with their respective lamps E, are insulated from each other in any usual manner, and are preferably inclosed in the cable W, extending from the cash-register R to the cable S, while $m m'$ are the feed and return wires, respectively, common to all light-circuits.

The operation of my device is simple, yet effective. When the key K is fully depressed, a corresponding indicator I is displayed in the usual manner. The indicator-rod i and the projection p thereon being composed of iron or steel, it follows that when the projection p engages the copper plate c the light-circuit is automatically completed through the incandescent lamp E and the cash-register R, the latter being grounded in the usual well-known manner, whereupon the compartment s of the cabinet S is illuminated and the figure f on the glass front F thereof is illuminated or brought into relief. The indicator I being displayed, and therefore the projection p on the indicator-rod i being in contact with the copper-plate c until the register R is again operated, it follows that the lamp E continues to illuminate or bring into relief the figure f until the next registration and indication is made by the register, when, as the key K' is retracted, the indicator I drops in the usual manner, whereby the circuit through the lamp E is automatically broken, thereby extinguishing said lamp and darkening the compartment s . The lamp E begins to illuminate or bring into relief the figure f of the compartment s simultaneously with the engagement of the shoulder p' on the indicator-rod i of the indicator I with the copper plate c' , which is in circuit with said lamp E. Each depression of the register-keys therefore breaks the circuit and extinguishes the incandescent lamp, which illuminates or brings into relief each particular figure or symbol corresponding to the preceding purchase and at the same time automatically establishes a new circuit, whereby the appropriate lamp illuminates or brings into relief the number or symbol corresponding to that which is indicated by the register. Each indicator of the register therefore has its corresponding light-circuit, which, when unbroken, actuates a particular incandescent lamp and no other, whereby the figures or symbols on the face of the corresponding compartment of the cabinet is illuminated or displayed in relief.

While in my device I prefer to use plates of copper to form the connections between

the various light-circuits and the corresponding indicator-rods it is evident that said plates may be composed of any other metal or material which is a good conductor of electricity. In this connection I would also call attention to the fact that in lieu of the illumination of the figures or symbols by corresponding electric lamps my device may be so modified as to actuate the operative parts of a registering device at any desired point from the original cash-register, so that when a purchase is registered and indicated on the ordinary machine the contact of the projection on the indicator-rod with its corresponding copper plate completes the circuit through and actuates the operative parts of the registering device at a point more or less remote from the original registration and indication.

A bell may also be circuited with my device when the latter is used to illuminate or bring into relief figures or symbols as heretofore set forth, so that when the light-circuit is established and the corresponding figure or symbol is illuminated or brought into relief the bell may be sounded. This feature, however, is unimportant, as the constant clamor of the bell would be more of a nuisance than the bell would be novel. Hence I do not desire to be understood as making any claim for the use of the bell in connection with my device.

It is also apparent that in lieu of the cabinet and compartments the figures or symbols to be displayed may be portrayed in any well-known way on the lamps.

My device being primarily intended to more effectually call the attention of customers to the amounts of their purchases it is proper to add that if the compartments, upon the faces of which are electrically displayed the amounts of such purchases, are placed opposite to mirrors, which customers habitually face, the figures or symbols may be reflected upon the mirrors, where they would be bound to be noted by the customers. When used in this way, of course the figures or symbols should be reversed on the fronts of the several compartments.

I am aware that a patent has been heretofore granted to E. D. Gibbs, No. 509,658, dated November 28, 1893, who perfects a means for illuminating the front of a cash-register and incidentally the indicators placed therein, and in this application I expressly disclaim the idea of illuminating the cash-register or any part thereof in any way.

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a cash-register, of electric circuits, indicators interposed therein and adapted to be operated by said electric circuits when established, and a circuit-breaker common to and controlled by the operating-keys of the machine, whereby said circuits may be automatically established and broken at each operation of the register, substantially as described.

2. The combination, of the indicator-rods of

a cash-register, with electric circuits, corresponding in number to the number of said indicator-rods, incandescent lamps on each of said circuits, symbols on said lamps corresponding to the symbols or indicators operated by said indicator-rods, means for operating said indicator-rods, and means for opening and closing said electric circuits through said indicator-rods and incandescent lamps, substantially as described.

3. The combination, with a cash-register, of the indicators, the indicator-rods, the indicator-carriage, projections on said indicator-rods adapted to engage on said indicator-carriage when said indicators are displayed in the well-known manner, connecting-plates attached to the top of said indicator-carriage and to be interposed between the projections on said indicator-rods and said indicator-carriage, when corresponding indicators are displayed, means for insulating said connecting-plates from said indicator-carriage and from each other, means whereby the projections on said indicator-rods may be engaged with, and disengaged from, said connecting-plates, when said indicators are operated, means for operating said indicators, electric circuits adapted to be established and broken when the projections on said indicator-rods are engaged with, and disengaged from, said connecting-plates, respectively, and incandescent lamps adapted to display figures or symbols when said circuits are established, substantially as described.

4. The combination, with a cash-register, of the indicators, the indicator-rods, the indicator-carriage, projections on said indicator-rods adapted to engage on said indicator-carriage when said indicators are displayed in the well-known manner, connecting-plates attached to the top of said indicator-carriage and to be interposed between the projections on said indicator-rods and said indicator-carriage, when corresponding indicators are displayed, means for insulating said connecting-plates from said indicator-rods and from each other, means whereby the projections on said indicator-rods may be engaged with, and disengaged from, said connecting-plates, when said indicators are operated, means for operating said indicators, electric circuits adapted to be established and broken when the projections on said indicator-rods are engaged with, and disengaged from, said connecting-plates, respectively, and incandescent lamps, each in a separate compartment of a suitable cabinet and adapted, when said circuits are established, to display figures or symbols on the fronts of said compartments corresponding to the figures or symbols on the indicators

of the cash-register when said circuits are established, substantially as described.

5. The combination, with a cash-register, of the indicators, the indicator-rods, the indicator-carriage, projections on said indicator-rods adapted to engage on said indicator-carriage when said indicators are displayed in the well-known manner, connecting-plates, attached to the top of said indicator-carriage and to be interposed between the projections on said indicator-rods and said indicator-carriage when corresponding indicators are displayed, means for insulating said connecting-plates from said indicator-carriage and from each other, means whereby the projections on said indicator-rods may be engaged with, and disengaged from, said connecting-plates when said indicators are operated, means for operating said indicators, electric circuits adapted to be established and broken when the projections on said indicator-rods are engaged with, and disengaged from, said connecting-plates, respectively, and auxiliary indicators, at a point remote from the register but corresponding in significance with the indicators thereon, and adapted to be operated when said circuits are established, substantially as described.

6. The combination, with a cash-register, of the indicators, the indicator-rods, the indicator-carriage, projections on said indicator-rods adapted to engage on said indicator-carriage, when said indicators are displayed in the well-known manner, connecting-plates attached to the top of said indicator-carriage and to be interposed between the projections on said indicator-rods and said indicator-carriage when corresponding indicators are displayed, means for insulating said connecting-plates from said indicator-carriage and from each other, means whereby the projections on said indicator-rods may be engaged with, and disengaged from, said connecting-plates, when said indicators are operated, means for operating said indicators, electric circuits adapted to be established and broken when the projections on said indicator-rods are engaged with, and disengaged from, said connecting-plates, respectively, and an auxiliary indicating device at a point remote from the first-named cash-register, adapted to be operated when said circuits are established, substantially as described.

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

CHARLES McNABB.

Witnesses:

W. C. LAWSON,
ED. SCHIRMER.