No. 637,721. Patented Nov. 21, 1899.

G. E. EMERSON.

TIME STAMPING MACHINE.

(Application filed Nov. 11, 1898.)

(No Model.)

Fig. 1.

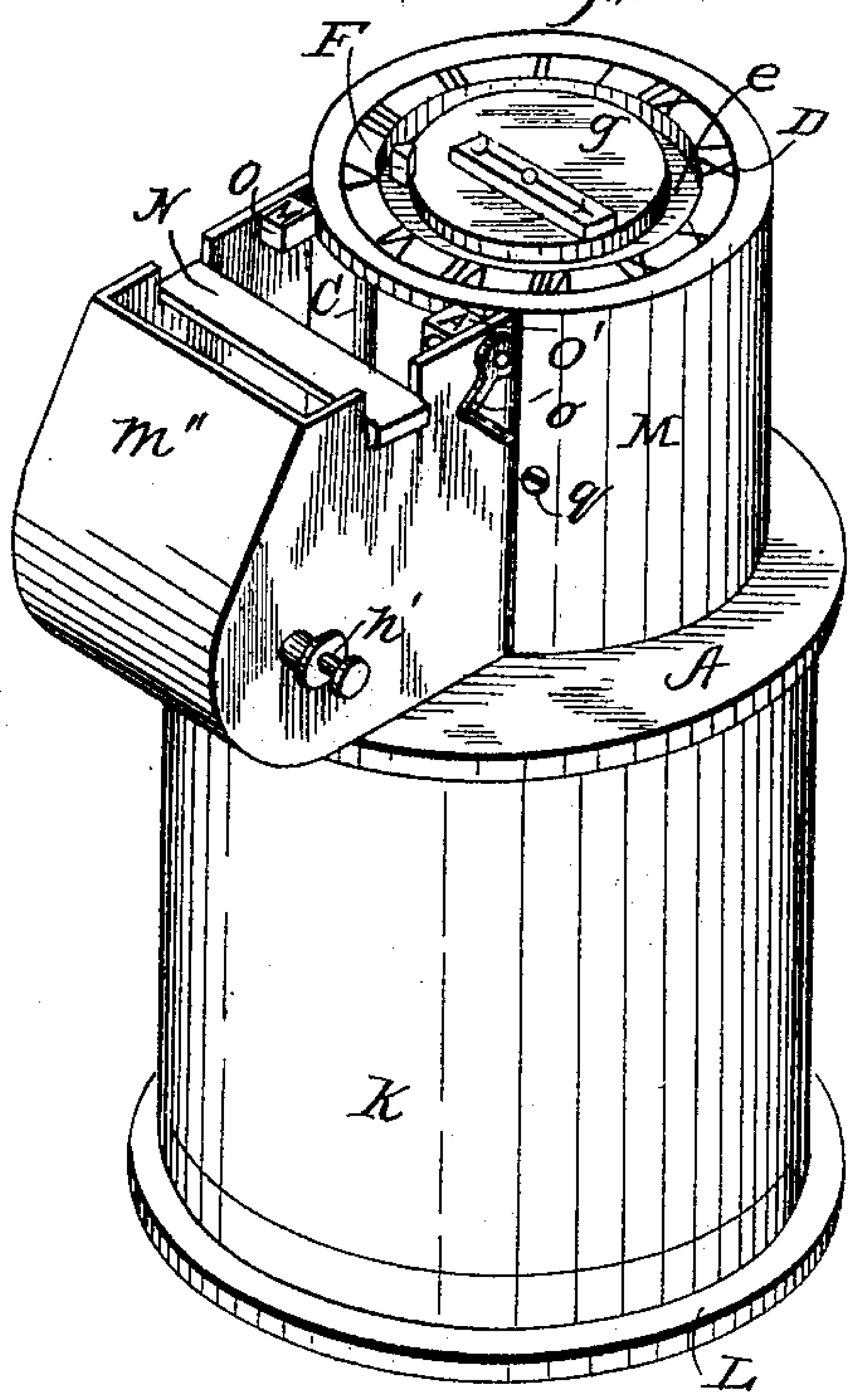


Fig. 4.

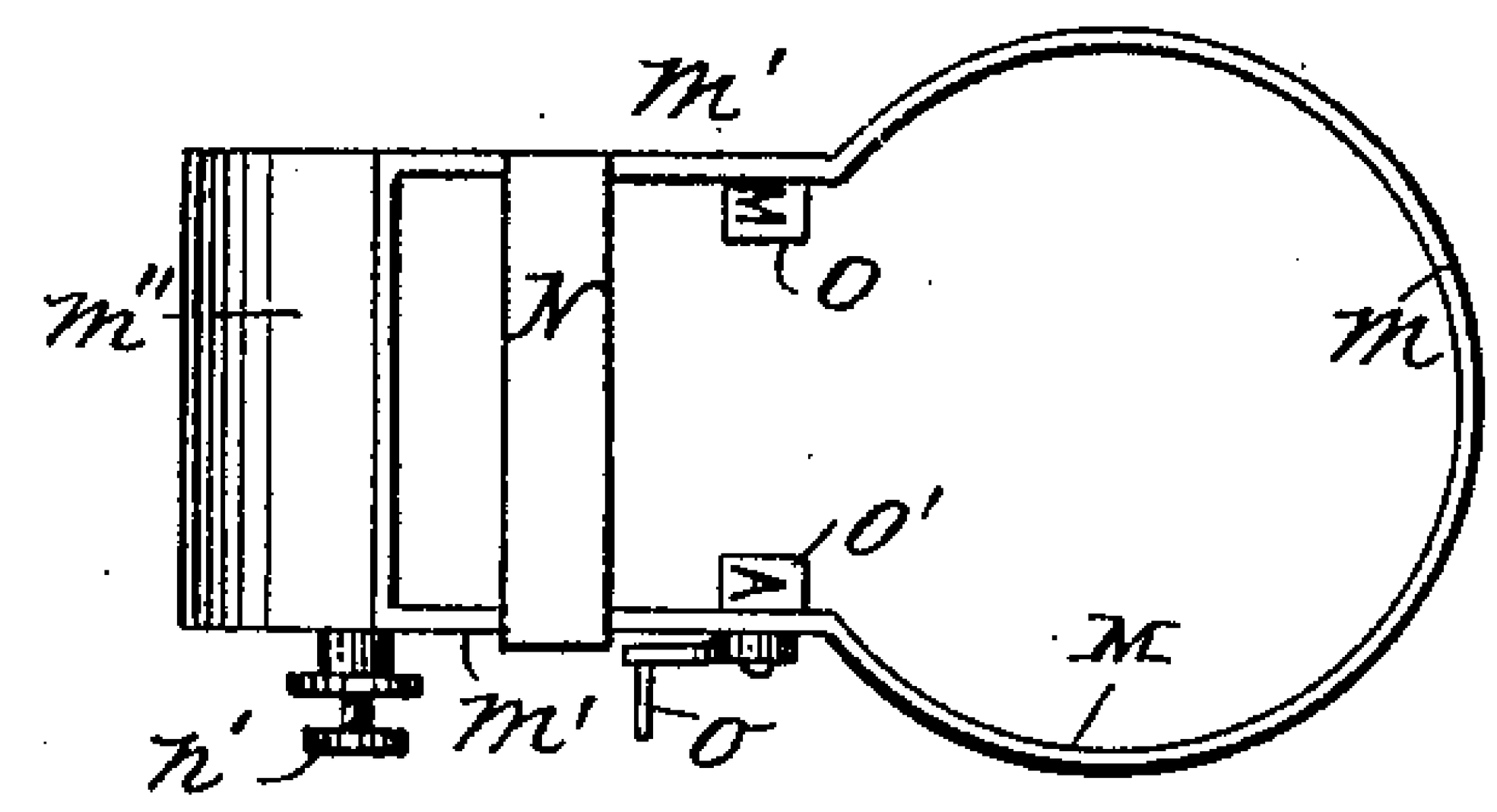


Fig. 3.

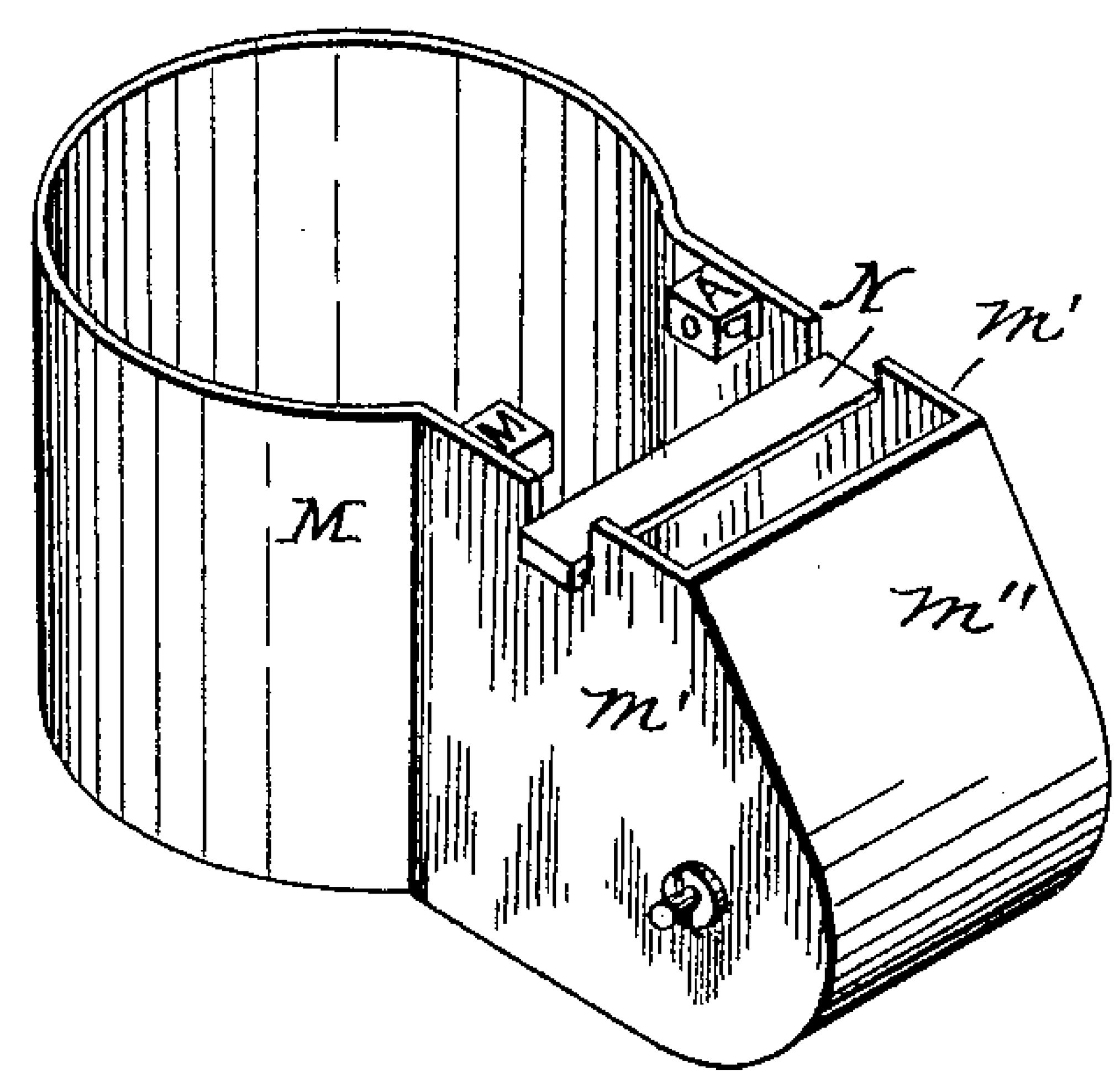


Fig. 2.

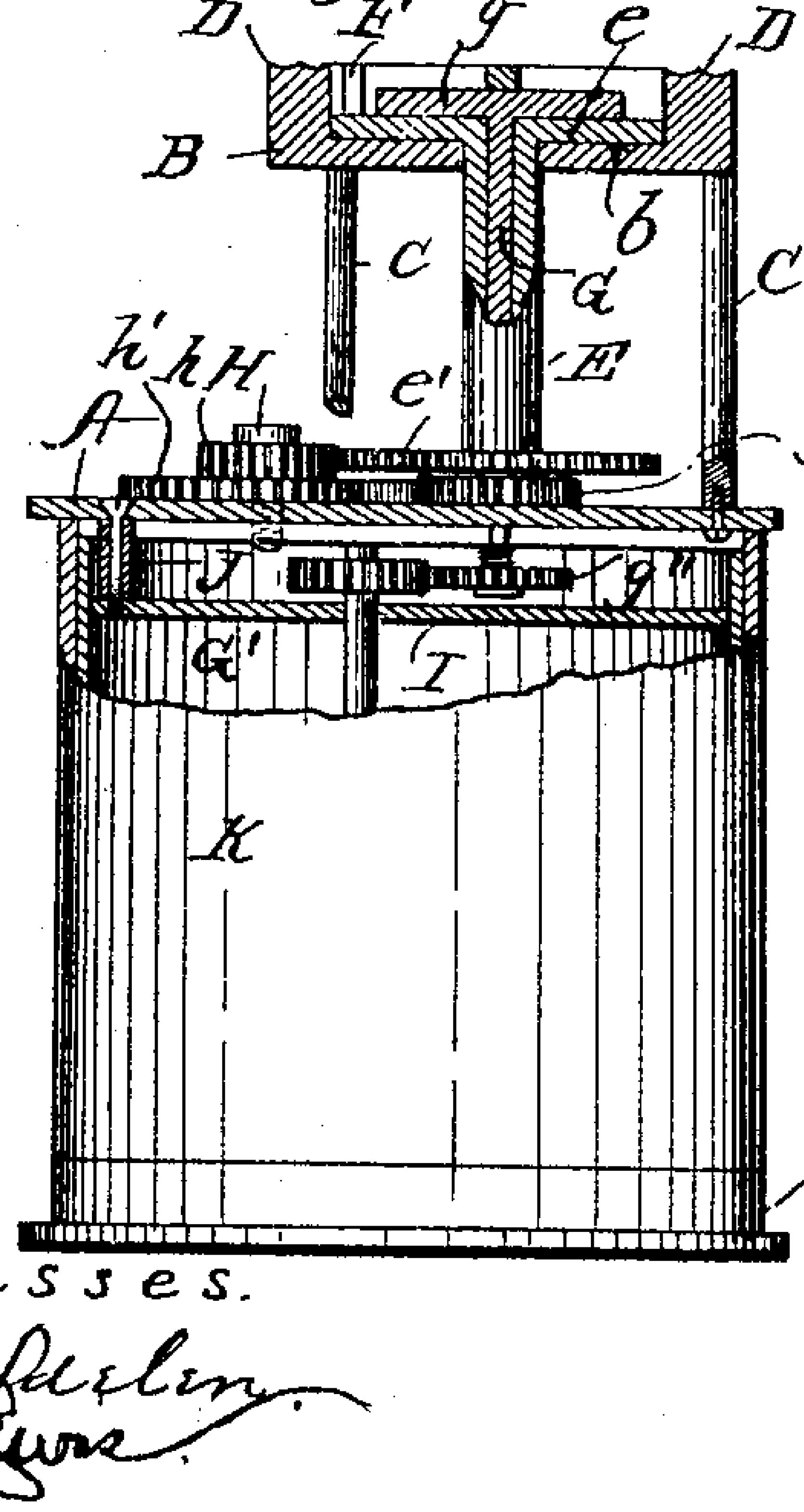
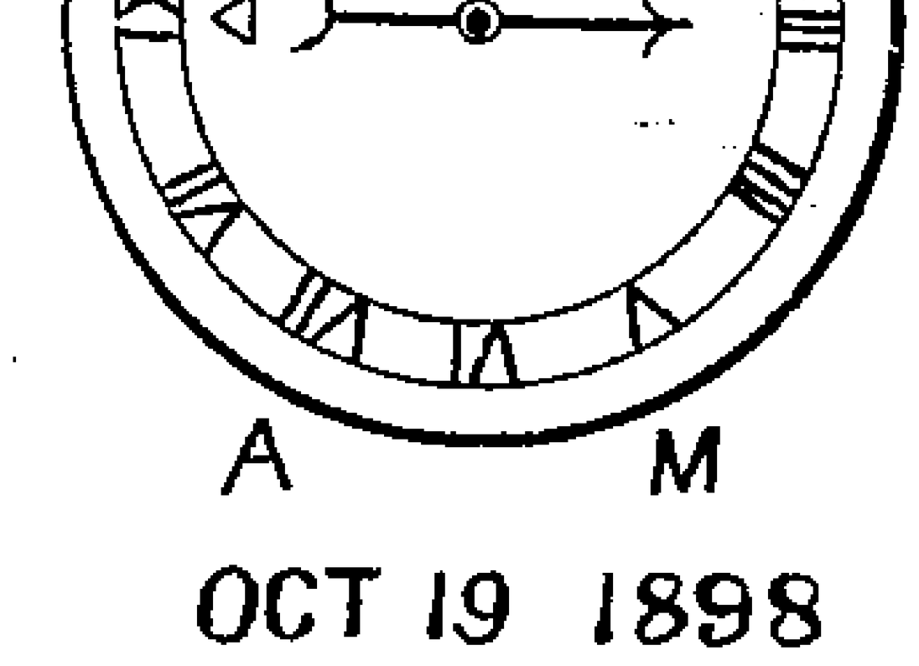


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE E. EMERSON, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE EMERSON TIME STAMP COMPANY, OF SAME PLACE.

TIME-STAMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 637,721, dated November 21, 1899.

Application filed November 11, 1898. Serial No. 696,159. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. EMERSON, a citizen of the United States, residing at Newark, New Jersey, have invented a new and useful Improvement in Time-Stamping Machines, which invention is fully set forth in the following specification.

My invention relates to time-stamping machines, and particularly to that class in which the exact hour and minute of stamping are indicated with (approximate) accuracy by a dial and movable hands. In time-stamps of this construction it is necessary that the stamping-dial be reversed in order that the impression stamped on the card or paper may be correct. It is also necessary that the hour and minute stamping dies should travel backward—from right to left—for the same reason. This has been accomplished heretofore by placing the dial and dies on the back of the clock mechanism and gearing the dies with the driving-shaft of the clock or by locating the stamping-dial and hands in any convenient casing and connecting the hands with the clock mechanism by intermediate gearing, as desired. This latter method necessitates specially-constructed parts of more or less complication. Time-stamping machines have also been constructed that consist of a heavy stationary boxing in which the clockwork is located and upon which are mounted the stamping-dies, the printing being done by a pad-carrying arm hinged to the boxing and which in stamping a paper is pressed down upon the dies. Owing to their complicated structure and bulkiness, these machines are liable to get out of order and are unwieldy. Besides they require an inking ribbon or roller.

My machine is a hand-stamp simple in construction, inexpensive, and durable. It may be described as merely a small office-clock, with an attachment in front that carries the stamping-dies.

The invention consists in attaching directly to the front and outside of a clock a framework carrying the stamping dial and dies, in providing a collar or hood that protects these parts and may carry other stamping-dies, and in certain other features and details, all as hereinafter set forth, and as illustrated by the drawings annexed hereto and forming part of this specification.

In the drawings, Figure 1 shows in perspective the device as a whole. Fig. 2 is an elevation, partly broken away, of the framework and the stamping parts carried thereby. Fig. 3 is a perspective, and Fig. 4 a plan, of the collar or hood; and Fig. 5 is an impression made by the stamp.

The face and hands are removed from an ordinary small office-clock, and the framework shown in Fig. 2 is substituted, as seen in Fig. 1. This frame consists of the base-plate A, a disk large enough to cover the front of the clock, and another plate or disk B, parallel to A, but smaller, secured thereto at one side of its center by pillars C, as shown. B is centrally perforated and countersunk to provide the annular shoulder *b*. Hollow shaft E is provided at its upper end with the flange or annulus *e*, which rests upon shoulder *b* and is free to turn thereon and has the projection F. On the lower end of shaft E is fast the gear *e'*. The shaft G turns freely inside of E and has fast on its upper end the disk *g*, supported by and free to turn on the upper surface of E and *e*. The lower end of shaft G passes through base-plate A. Gear-wheel *g'* is fast on G above A and gear *g''* below. Pinion G', having the same number of teeth as gear *g''*, is fast on the minute-shaft of the clock and in mesh with *g''*. Stud H on plate A carries gears *h* and *h'*, fast together, meshing, respectively, with *e'* and *g'* in the well-known manner to revolve *e'* once to every twelve revolutions of *g'*. It will be seen that every revolution of the minute-shaft of the clock will turn shaft G one revolution and shaft E one-twelfth of a revolution in the opposite direction.

An annular (rubber) stamping-plate D, which may consist of two or more concentric rings containing the clock-dial and figures, (of course reversed,) is secured on the upper surface of B. On projection F is a die, preferably in the shape of an arrow-head, corresponding to the hour-hand, and on disk *g* is secured an arrow corresponding to the minute-hand. While a very slight pressure is necessary to stamp the impression upon the card or paper, yet a severe blow upon the

dies will not be communicated to the clock mechanism.

I find it convenient to fasten the framework to the clock by screws passing through plate A into the front plate I of the clock mechanism, and for holding the parts together more rigidly I may surround the screws with sleeves J, bearing at each end against A and I, respectively. I also find it desirable to surround the body of the clock mechanism with another casing K, that projects at the back beyond the winding and setting apparatus and allows a cap L to be locked thereto, thus preventing any one not having the key from tampering with the clock.

Another feature of my invention is the hood M. This may be made of sheet metal, and consists of the circular part *m*, adapted to fit around the dial and framework, the two flat sides *m' m'*, and the curved front *m''*, uniting the latter. This offset portion forms a casing for such additional dies as may be desired. A bridge N, across the top and lower shafts, collars, or wheel, (not shown,) forms bearings for endless rubber bands carrying the desired stamping-dies. Extending beyond the side *m'* are milled heads *n'* for shifting the stamps when needed. I have also shown at O an offset for carrying the letter "M" and at O' a pivoted device for the letters "A" and "P." By turning handle *o* the stamp will imprint either "A. M." or "P. M." The hood is secured to the clock, as by screws *q*, passing into the pillars C.

Since the minute-hand of the clock passes through its geometrical axis and gear G' is centrally located, it follows that gear *g''* is perforce at one side of the center and that plate B, stamping-die D, &c., are not concentric with the clock proper, but located at one side, and therefore made smaller. The offset of hood M is so located as to fill in the opposite side and give a compact symmetrical configuration to the device as a whole. This arrangement of the cylindrical portion and the offset portion of hood M on opposite sides of the axial line of the clock tends to preserve the balance of the machine when handled for stamping.

The mode of operation is obvious. Take the machine in the hand and press its stamping-face upon an inking-pad and then press it down lightly upon the paper to be stamped.

It will be observed that my device is simple and light. It may be carried around in the pocket.

Modifications of the details herein shown and described may be made without departing from the principles of my invention.

I claim—

In a time-stamping machine adapted to be taken in the hand and pressed down upon the paper to be stamped, the combination with an ordinary office-clock of a stamping device, the latter comprising a framework secured directly to the front plate of the clock mechanism eccentrically thereof and carrying time-dies and gearing therefor, and an inclosing hood secured to the framework and provided with an offset portion for additional dies, said offset lying on the other side of the center of said clock-plate, for the purpose set forth, and substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE E. EMERSON.

Witnesses:

GEORGE E. EMERSON, Jr.,

OSCAR H. MAY.