

No. 688,326.

Patented Dec. 10, 1901.

A. NEWMAN.
MARKING DEVICE FOR WATCHMEN'S CLOCKS.

(Application filed Apr. 15, 1901.)

(No Model.)

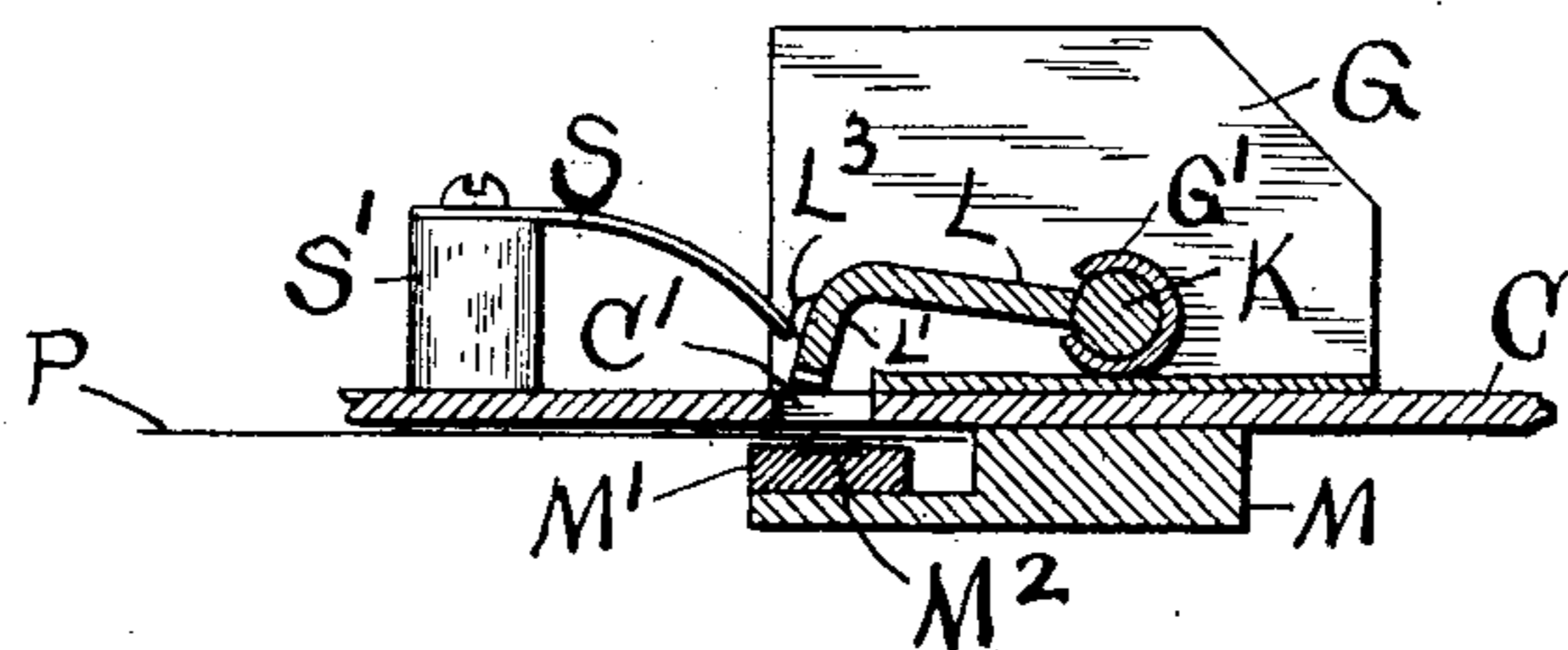


Fig. 3.

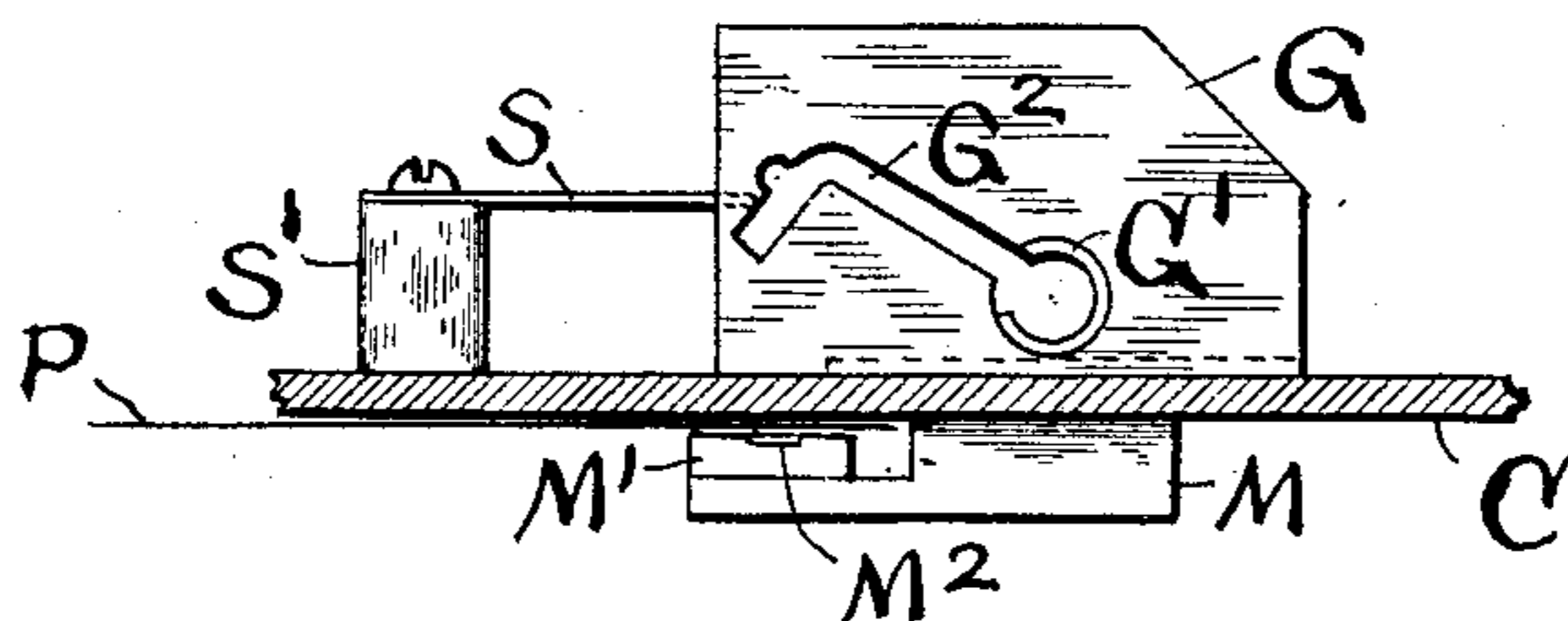


Fig. 1.

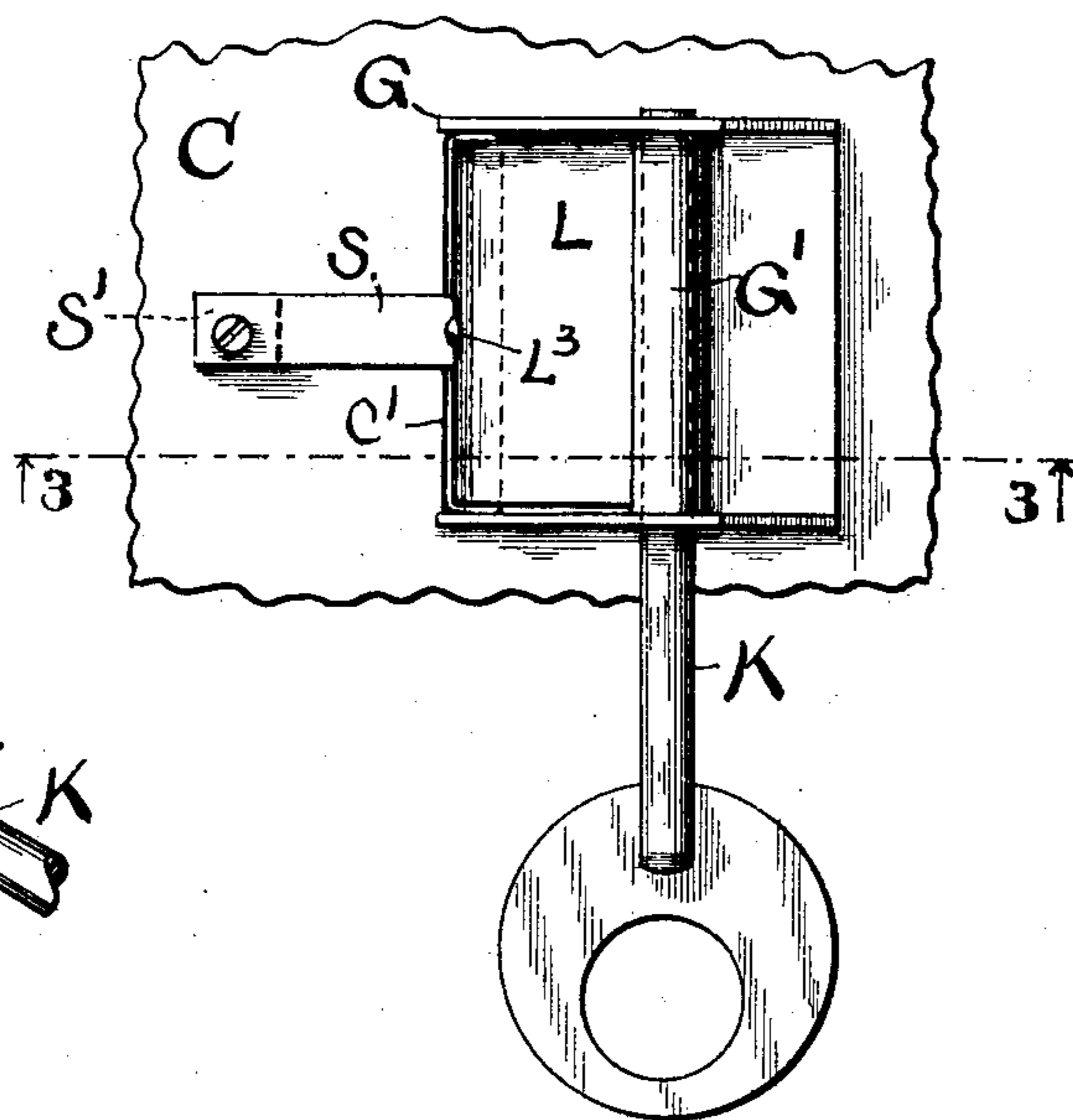


Fig. 2.

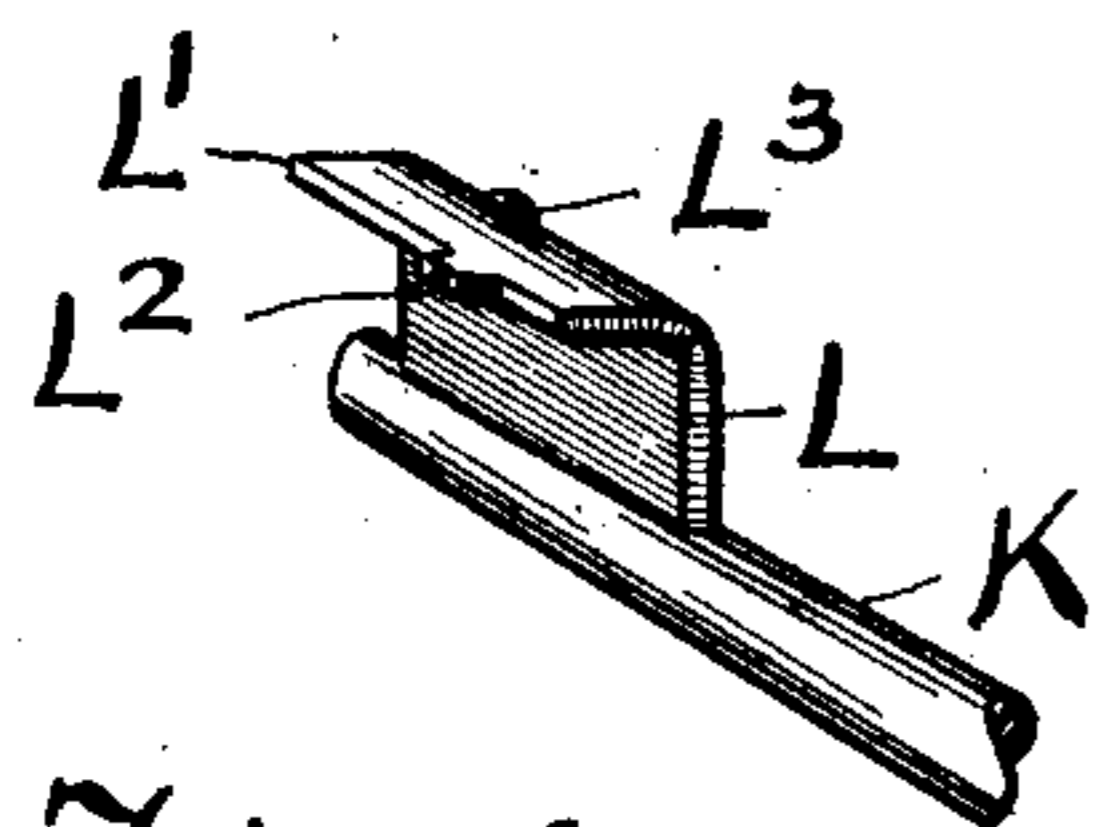


Fig. 4.

WITNESSES:

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MARKING DEVICE FOR WATCHMEN'S CLOCKS.

SPECIFICATION forming part of Letters Patent No. 688,326, dated December 10, 1901.

Application filed April 15, 1901. Serial No. 65,922. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM NEWMAN, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Marking Devices for Watchmen's Clocks, of which the following is a specification.

My invention relates to marking devices for portable watchmen's clocks, and has for its object improvement in such devices and their mode of operation. The kind of clock for which these devices are particularly applicable is illustrated in my pending application, Serial No. 739,764, filed December 9, 1899.

In the accompanying drawings, Figure 1 is a side elevation of a key-receiving box, together with the associated apparatus. Fig. 2 is a plan of the same, showing the key inserted in position. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a perspective view of the marking end of a key.

In the said drawings, C represents a transverse plate supported adjacent to the clock mechanism in any convenient manner from the frame which supports the works of the clock.

P represents a paper dial, which is moved by the clock mechanism adjacent to one face of the plate C. Secured to and supported on top of the plate C is a key-box G, formed of two upturned flanges, between which there is a slotted tube G'. The key-opening is in one of the upturned flanges and is marked G² in Fig. 1. Supported on the opposite side of the plate C is a bracket M, to which is secured a matrix-plate M', the matrix characters of which are partly illustrated at M² in Figs. 1 and 3. Opposite the matrix characters in the plate M' there is a slot C' through the plate C, which gives communication from the key-box G to the matrix-plate M'. The female characters which form the matrix-plate are arranged in a row beneath the slot C' and of a length about equal to the distance between the two upturned ends of the key-box G. The corresponding male characters are formed on a series of keys K, one of which is illustrated in the drawings. The key-stem K has on it a flange L, the outer portion of which is bent around to nearly a right angle, as shown at L'. On the edge or face of this

lip L', I form a series of characters which match the characters in the matrix-plate M'. I then cut away from the lip L' all characters but one of them, which is shown at L². Of a series of keys the first key would have a character located at one end of the lip L', the second key would have only the second character located a short distance from the end, and so on down through the entire series of characters that were originally formed on the key and which are the corresponding characters to those in the matrix-plate M'. The key-stem K fits into the slotted tube G', and the said tube is arranged so that the key may be turned a short distance, the result of which is to bring the character on the key into conjunction with the corresponding character in the matrix-plate. If there be between the key and the matrix-plate a paper dial (illustrated by P) at the time the two characters are brought together, this character will be marked or embossed upon the dial P. Adjacent to the key-box G is a post S', on the top of which is secured a spring S, that projects close to the lip L' of the key when it is inserted in the key-box. Secured to the lip L' is a small projection or rivet-head L³, so arranged that after inserting the key in the key-box turning the key will cause the projection L³ to engage the spring S and deflect it, as shown in Fig. 3. The length of the spring S and the length of the projection L³ are such that the spring S slips off of the projection immediately before the character on the key reaches the position where it will mark the paper dial P. The result of this action is that in slipping off of the spring S the force applied to the key to overcome the resistance of the spring S is sufficient to cause the proper embossing of the dial P. In other words, I make the spring S of a resistance corresponding to the pressure required to properly mark the dial and then cause the spring to release the key immediately preceding the actual marking. By this means the person who inserts and turns the key will know when he has pressed the key into the matrix-plate with sufficient force to mark the dial P. As the characters on the lip L' are at different places in different keys, it is desirable to have the key supported and guided on its stem through the length of the space in which such characters occur. This

result is accomplished by making the tube G' a bearing for the stem of the key K through the entire length which the flange L occupies.

What I claim is—

- 5 1. The combination with a dial or sheet to be marked and a key provided with an indicating character for marking it, of a device engaged by said key, said device being arranged to resist the movement of the key by
10 a force equivalent to that necessary to properly mark said sheet and to release said key from such resisting force when the key has been moved to a position immediately adjacent to the sheet to be marked.
15 2. The combination with a dial or sheet to

be marked and a key provided with an indicating character for marking it, of a key-receiving box into which said key is inserted and by which it is guided for such marking, and a spring arranged to resist the movement 20 of said key toward its marking position and to release such resistance at the latter part of such movement.

Signed at Chicago, Illinois, this 13th day of April, 1901.

ABRAHAM NEWMAN.

Witnesses:

EMILY NEWMAN,
C. L. REDFIELD.