

## TIME ATTACHMENTS FOR LOCKS.

Patented May 2, 1876

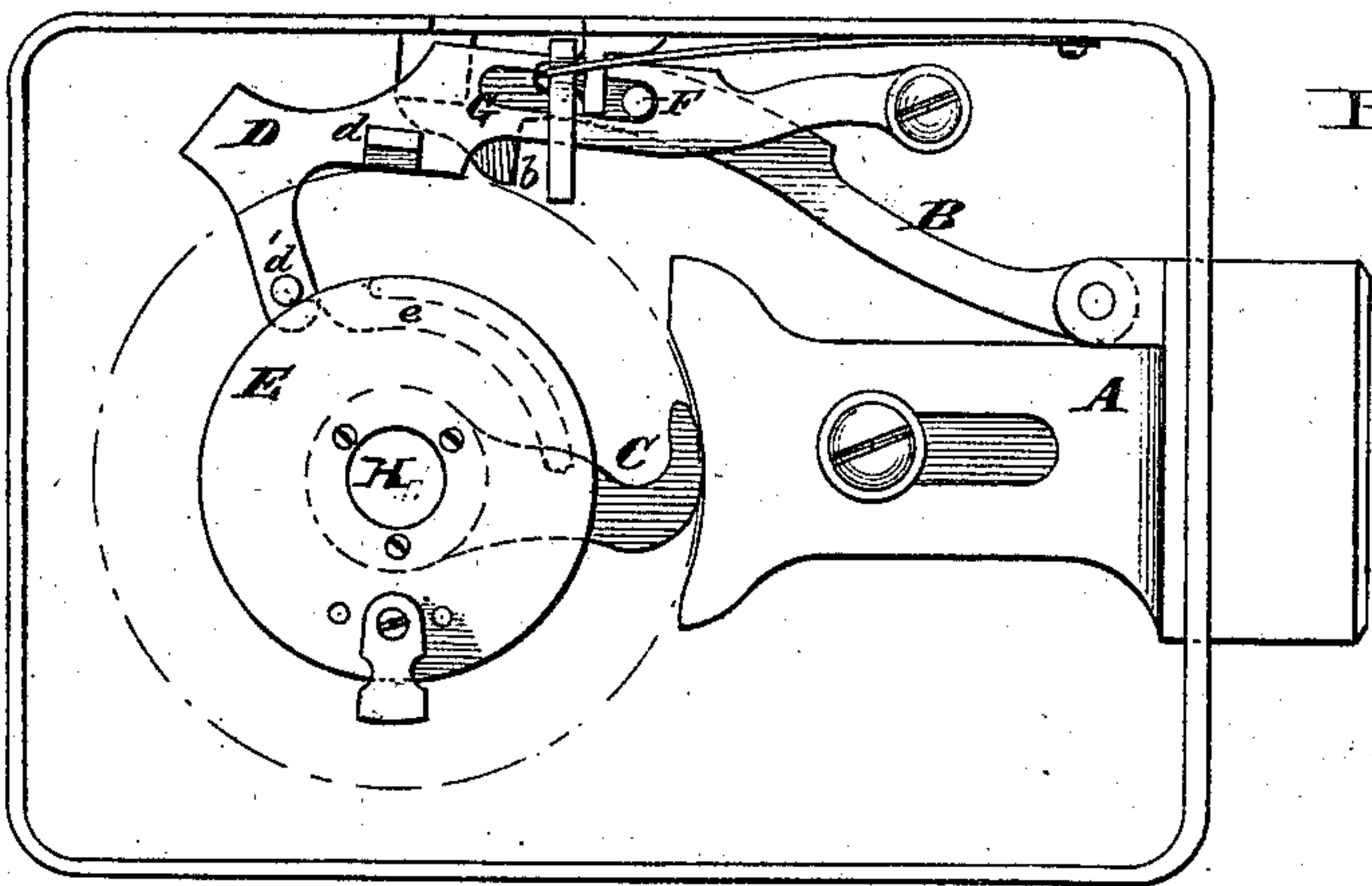
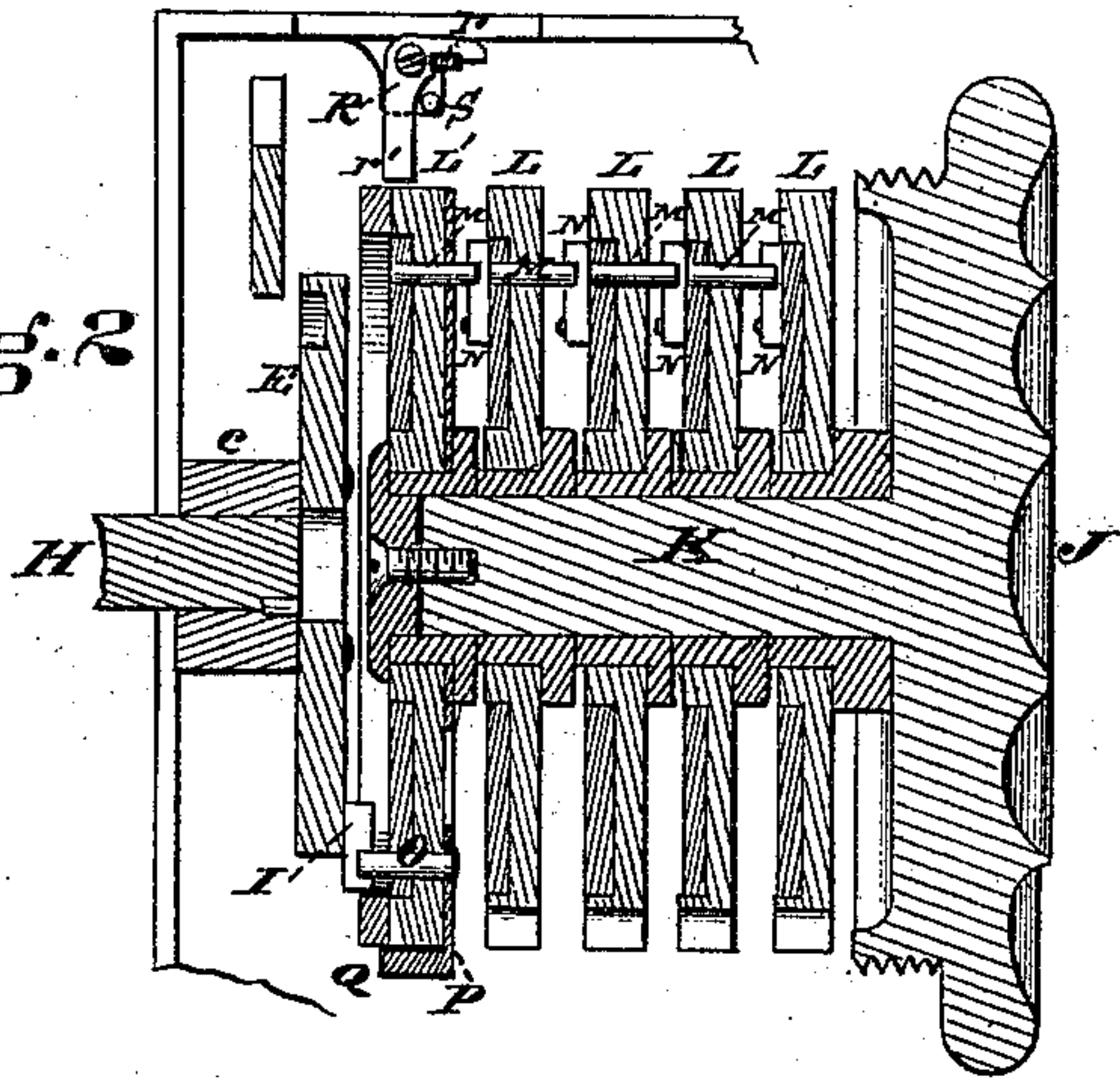
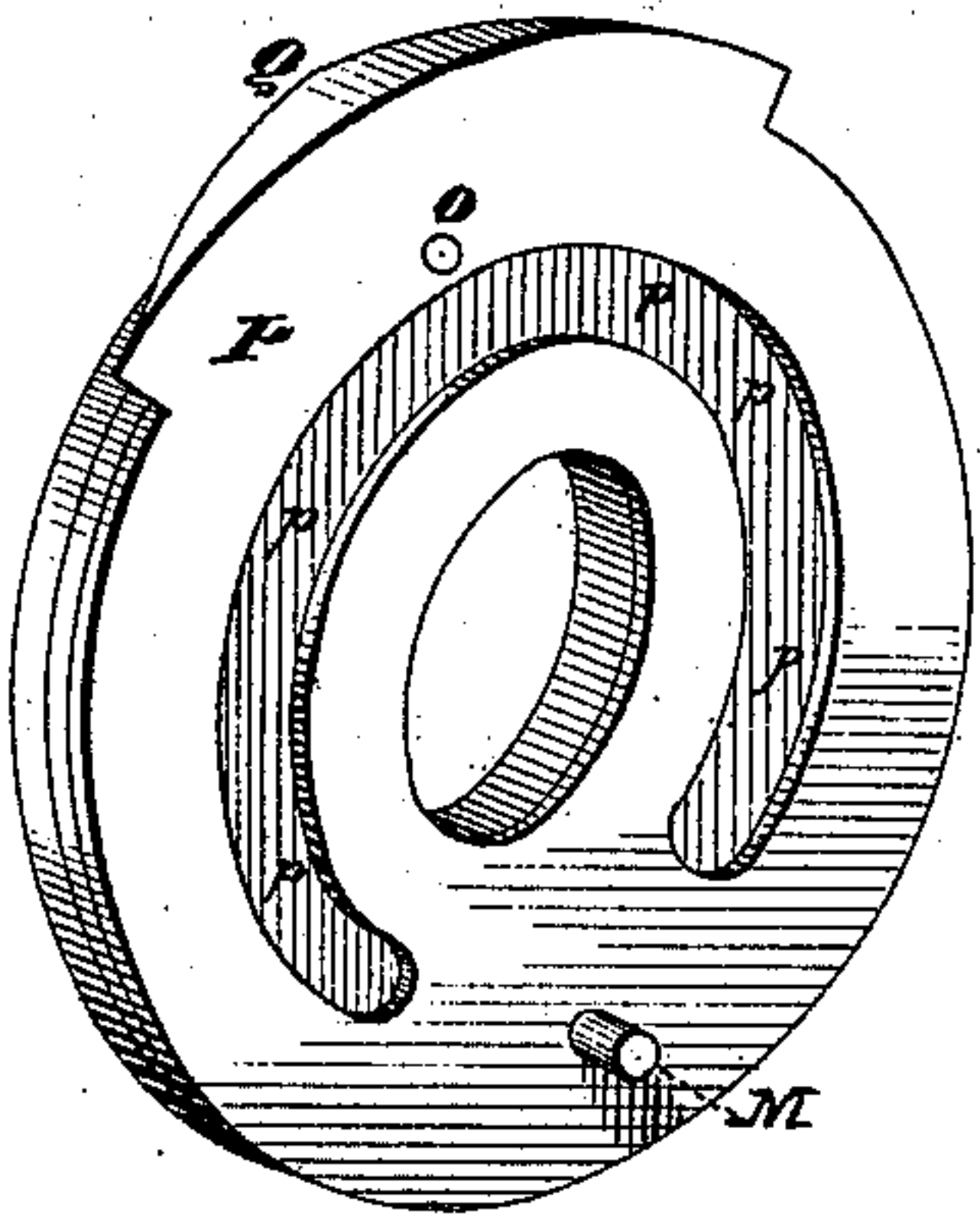


Fig. 1



**Fig. 2**

Fig. 3



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Attest

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# UNITED STATES PATENT OFFICE.

MILTON A. DALTON, OF CINCINNATI, OHIO, ASSIGNOR TO THE HALLS SAFE AND LOCK COMPANY, OF SAME PLACE.

## IMPROVEMENT IN TIME ATTACHMENTS FOR LOCKS.

Specification forming part of Letters Patent No. **176,933**, dated May 2, 1876; application filed March 16, 1876.

*To all whom it may concern:*

Be it known that I, MILTON A. DALTON, of Cincinnati, Hamilton county, State of Ohio, have invented an Improvement in Time-Lock Attachments, of which the following is a specification:

My invention consists in such an arrangement of parts as that the time attachment will at all times, when the lock is not permitted to be opened, throw the driving-pin of one of the tumblers out of connection with the drive-wheel or bolt-throwing plate of the lock, and at the proper time will not disturb the connection, and thus permit the lock to be opened in the ordinary way.

Figure 1 is an elevation of a lock, exclusive of tumblers, embodying my improvement. Fig. 2 is a section through the tumblers. Fig. 3 is a perspective view of the tumbler which connects with the drive-wheel.

A is the bolt of the lock, and B the gravitating-dog, which, when down, permits the revolving-hook C to engage with its hook *b* and throw the bolt. D is the angle-bar which dogs the tumblers, its projecting arm *d* occupying a position over the tumblers, so that when the tumblers are set to the combination it can fall into the notches thereof, the pin *d'*, at the same time, falling into the groove *e* of the drive-wheel E, the latter being secured to the hub *c* of the hook C in the ordinary way. The dog B and angle-bar D are connected together by the usual pin-and-slot device F G. H is the spindle of the lock, carrying the hook C and drive-wheel E, the latter having the fly I to revolve the tumblers. J is the rosette which is at the back of the lock, and carries the tumbler-journal K. L L' are the tumblers, having the usual projecting pins and flies M N, respectively, to connect them with each other for driving purposes. The tumbler L' carries a pin, O, which is rigidly secured to

the spring-plate P, the plate being cut away on its face, as shown at *p*, to give it the requisite flexibility. It is secured in place, as shown in Fig. 2, and its pin O and the pin M of the tumbler prevent its displacement. It is provided with a laterally-projecting lip, Q, extending over the tumbler L'. R is a bell-crank lever, the arm *r* of which is placed in connection with a time attachment, so that at the proper time for the opening of the lock the arm *r'* may be permitted to move to the left, as shown in Fig. 2. At all other times the bell-crank is held against the pin S by a hook under the arm *r*, or any other suitable connection with the clock.

When the bell-crank R is permitted to swing loosely, or is held in place by a delicate spring, the entire lock operates in the ordinary way, and can be opened at any time; but when the bell-crank is held rigidly by the clock, in the position shown in Fig. 2, it is impossible for the drive-wheel E to adjust the tumblers, owing to the fact that the driving-pin O is attached to the spring-plate P, which carries the cam-like projection Q, for in operation, when the bell-crank is so held, the projection Q impinges against the arm *r'*, so as to force the spring-plate backward, and thus throw its pin O entirely out of connection with the driving-fly I on plate E.

I claim—

A lock in which one of its tumbler-driving pins is thrown in or out of connection with its corresponding fly by the operation and connection of a time attachment.

In testimony of which invention I hereunto set my hand.

MILTON A. DALTON.

Witnesses:

EDGAR J. GROSS,  
C. B. PARCELLS.