(No Model.)

L. N. BEDFORD.

TIME LOCK.

No. 478,212. Patented July 5, 1892.

Fig. 1.

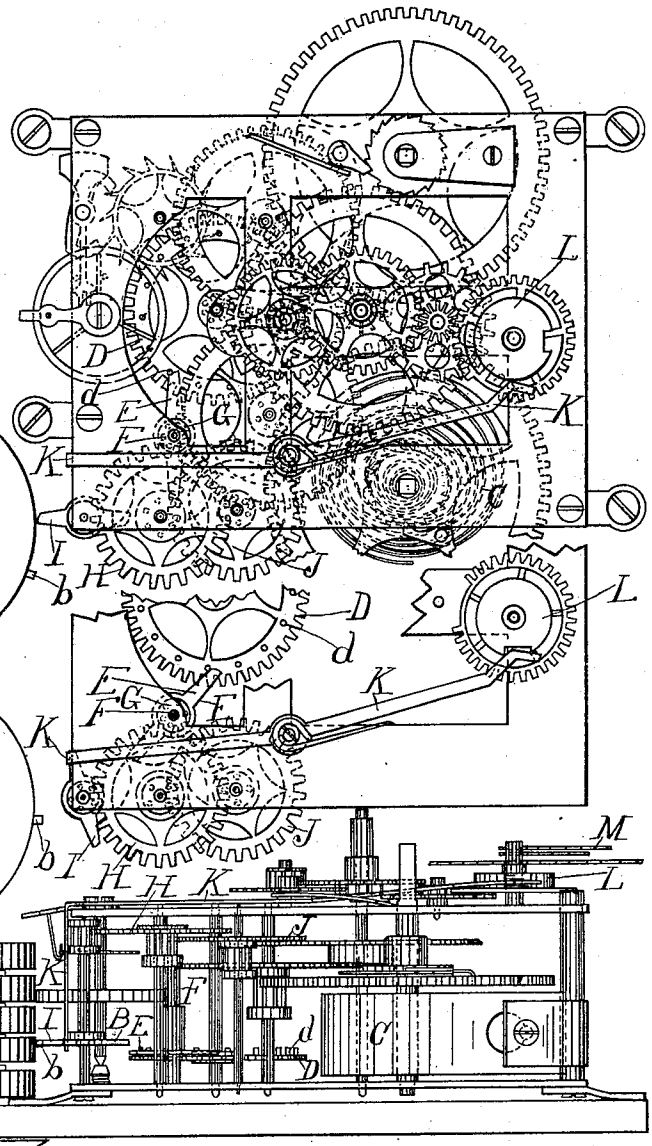

Fig. 2.

Fig. 3.

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TIME-LOCK.

SPECIFICATION forming part of Letters Patent No. 478,212, dated July 5, 1892.

Application filed June 18, 1891. Serial No. 396,685. (No model.)

To all whom it may concern:

Be it known that I, LYMAN N. BEDFORD, a citizen of the United States, residing at San Bernardino, in the county of San Bernardino and State of California, have invented a new and useful Improvement in Time-Locks, of which the following is a specification.

My invention relates to that class of time-locks in which the time mechanism is arranged for engagement with one of the rotating tumblers of the lock; and it consists of the combination, with one of the tumblers, of an intermittently-operating device arranged to intermittently engage such tumbler to displace it by partially rotating it.

The accompanying drawings ilustrate my invention.

Figure 1 is a plan view of mechanism designed to carry out my invention, a portion being broken away to contract the view. This figure shows the mechanism in the position it occupies when thrown into gear for operating the intermittent operating device. Fig. 2 shows a fragment of the said mechanism with the stop mechanism thrown into gear to stop the intermittently-operating device to allow the tumbler to remain in its adjustment, so that the lock may be unlocked. Fig. 3 is a plain side elevation of my improved time-lock.

A A′ A^2 A^3 A^4 are the tumblers of the lock. *a a′* a^2 a^3 a^4 are the notches which receive the dog of the lock.

b is a plug or pin projecting from one of the tumblers, preferably the second one of the train, as shown, into the path of the intermittently-operating spur B, which is connected by means of a suitable train of gearing with a driving-spring C.

The time mechanism (which is represented in the upper part of Fig. 1 and is omitted from Fig. 2) is connected with the stop and releasing wheel D, which is provided with pins or projections *d*, arranged to intercept the stop-spur E, which is fixed to the spindle F, on which is mounted a pinion G, which meshes with the cog H, arranged to drive the tumbler-displacing spur I. The wheel H is driven by the spring through the medium of the train J.

K is a stop device connected with the time mechanism L and arranged to periodically stop the tumbler-displacing spur-operating mechanism H J C, &c. In the drawings this stop device is represented as arranged to intercept the spur I; but it is to be understood that the specific stop arrangement shown is not of the essence of my invention. It is also to be understood that the time mechanism is to be provided with a suitable setting device, as indicated at M in Fig. 3. No attempt at elaborate illustration of such device has been made, for the reason that suitable contrivances for this purpose will readily present themselves to those versed in the art to which this invention pertains.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lock, the combination, with one of the rotating tumblers, of an operating device arranged to intermittently engage such tumbler to displace it, substantially as described.

2. In a lock, the combination of the tumbler-operating device arranged to intermittently engage the rotating tumbler to displace it, and a stop device arranged to stop such operating device, substantially as described.

3. In a lock, the combination of the tumbler provided with the projection, the intermittently-operating spur arranged to engage such projection when the tumbler is in the unlocking position to partially rotate the tumbler and throw it out of such unlocking position, and means for operating the spur, substantially as described.

4. In a lock, the combination of the tumbler provided with the projection, the intermittently-operating spur arranged to engage such projection when the tumbler is in its unlocking position to partially rotate the tumbler and throw it out of such unlocking position, means for operating the spur, and a stop device arranged to stop such spur, substantially as described.

5. The combination of the tumbler, the tumbler-displacing spur arranged to intermittently displace the tumbler, the spur-driving train, the time mechanism, the stop and releasing wheel D, provided with the pins and connected with such time mechanism, the stop-spur connected with the tumbler-displacing spur-operating mechanism, and a stop device connected with the time mechanism and arranged to periodically stop the tumbler-displacing spur-operating mechanism, substantially as described.

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