(No Model)

H. TUTTLE.

INDICATOR LOCK STRIKE.

No. 583,101. Patented May 25, 1897.

Fig. 1.

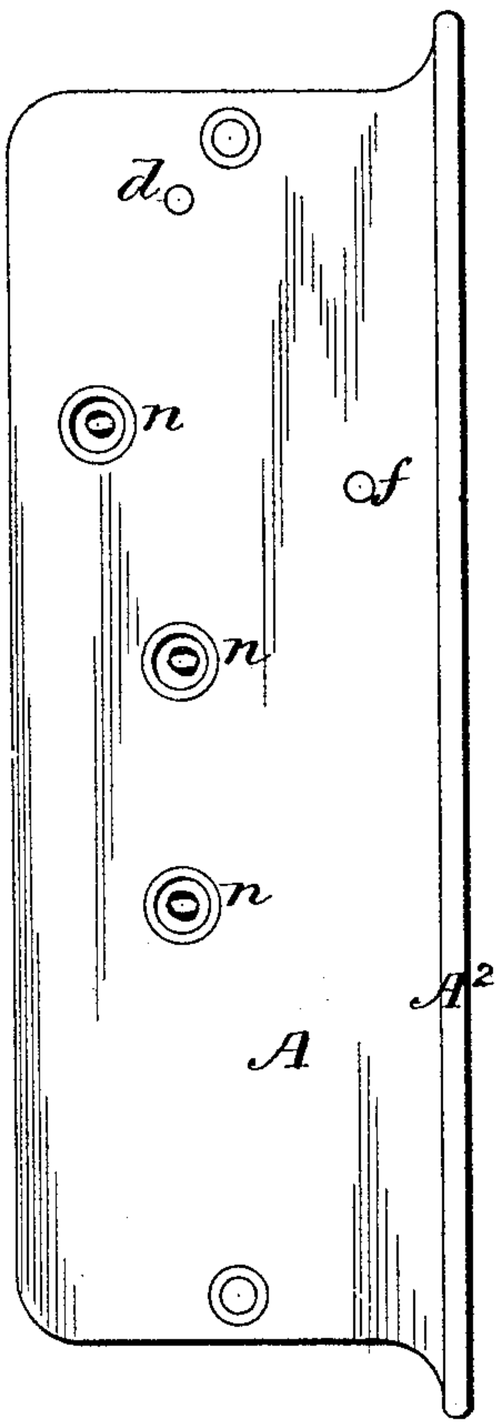


Fig. 2.

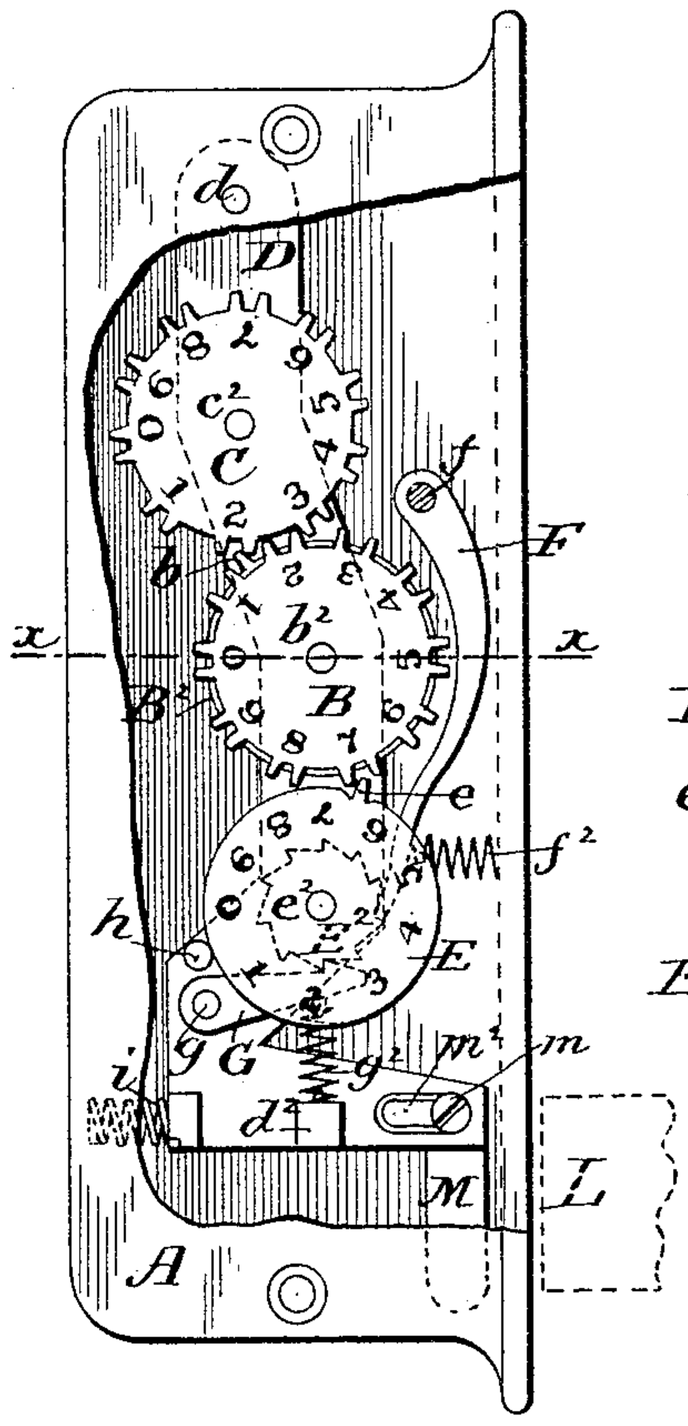


Fig. 3.

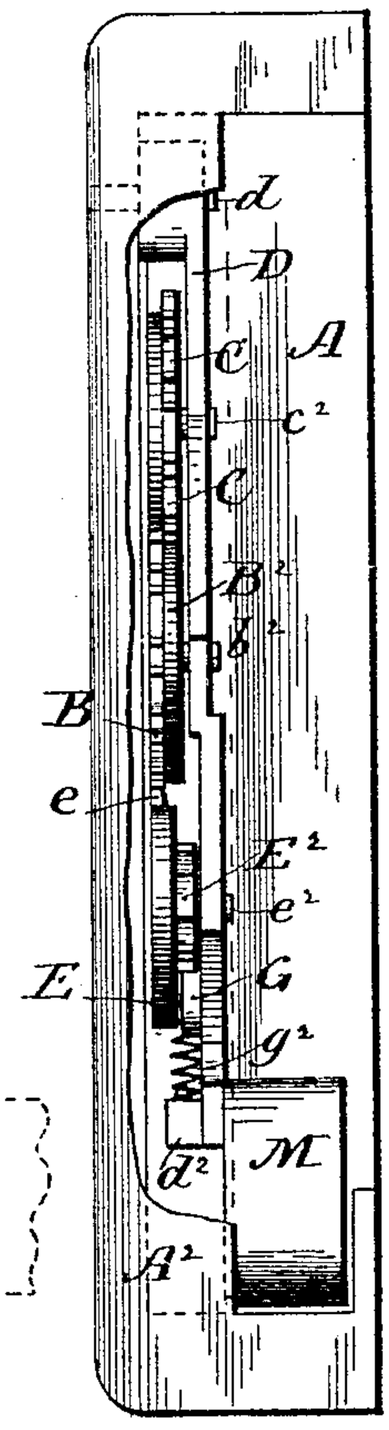
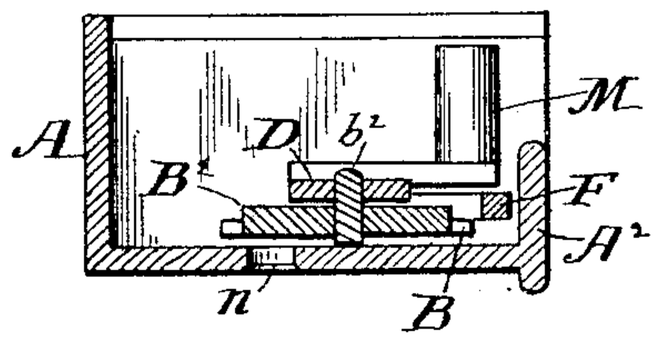


Fig. 4



WITNESSES

A. B. Diggs

L. S. Heinrichs

INVENTOR

Hosmer Tuttle

by E. E. Masson, Attorney

UNITED STATES PATENT OFFICE.

HOSMER TUTTLE, OF CEDAR RAPIDS, IOWA, ASSIGNOR OF ONE-HALF TO WILLIAM SMITH, OF SAME PLACE.

INDICATOR-LOCK STRIKE.

SPECIFICATION forming part of Letters Patent No. 583,101, dated May 25, 1897.

Application filed June 8, 1896. Serial No. 594,750. (No model.)

To all whom it may concern:

Be it known that I, HOSMER TUTTLE, a citizen of the United States, residing at Cedar Rapids, in the county of Linn, State of Iowa, have invented certain new and useful Improvements in Indicator-Lock Strikes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to indicator-locks having mechanism therein to indicate the number of times that it has been operated; and the object of my invention is to provide a lock-strike with simple, effective, and durable means for indicating how many times a lock-carrying door used in connection therewith may have been opened and closed without modifying the construction of an ordinary lock carried by the door. I attain this object by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the indicator-lock strike. Fig. 2 is also a front view of the same with a portion of the frame broken away to show the mechanism therein constructed in accordance with my invention. Fig. 3 is a side view of the same with a portion of the frame broken away to show the mechanism therein. Fig. 4 is a horizontal section on line $x\ x$ of Fig. 2.

In said drawings, A represents the rectangular hollow frame of the lock-strike. It is substantially like an ordinary lock-strike frame, but somewhat larger and deeper. Its side face has a plate A^2 thereon about half of its width to inclose and in part protect the indicator mechanism within the frame. Said mechanism consists of an arm D, pivotally suspended from its upper end upon a pivot-pin d, projecting from the frame in its interior. Said arm carries near its lower end on a pivot-pin e^2 a wheel E, that has a single tooth e projecting from its periphery. Above the wheel E the arm D carries on a pivot-pin b^2 a double wheel or two wheels secured to each other, the outer wheel B of which has ten pairs of teeth adapted to engage with the tooth e of the wheel E at the end of each revolution of said wheel E, and the inner wheel B^2, that has a single tooth b projecting from its periphery. Above the wheel B^2 and in the same vertical plane the arm D carries on a pivot-pin c^2 a wheel C, having teeth to engage with the single tooth b of the wheel B^2, so that for each revolution of the wheel E the wheels B B^2 will revolve one-tenth of a revolution and for each revolution of the wheels B B^2 the wheel C will revolve one-tenth of a revolution, as it is usual with the indicators of locks and of other devices.

Attached to the inner face of the wheel E there is a ratchet-wheel E^2, having ten teeth, that is rotated one-tenth of a revolution every time that the arm D is oscillated. This is accomplished by a pawl F, that has its upper end pivoted upon a pin f, secured to the frame A, and has its lower end retained into engagement with the teeth of the ratchet-wheel E^2 by a coiled spring f^2, having one end pressing against the back of the pawl and its other end against the plate A^2 of the frame. There is also in engagement with the teeth of the ratchet-wheel E^2 a retaining-pawl G, pivoted at g to the arm D. Said pawl is retained in contact with the ratchet-wheel by a coiled spring g^2, having one end pressing against the bottom of said pawl and the other end against a lug d^2, projecting from the side of the arm D. There is also projecting from the side of the arm D a pin h, that is in frictional contact with the toothless portion of the periphery of the wheel E to prevent it from being unduly revolved by the pawl F.

The lower portion of the arm D is normally advanced toward the open side of the lock-strike frame by a coiled spring i, having one end bearing against the interior surface of said frame and the other end against the edge of said arm. When the door (used in connection with the lock-strike) is closed and the end of its lock-bolt L (shown dotted in Fig. 2) enters within the lock-strike, it comes in contact with an arm M, that is secured in its path to the lower end of the arm D and forces the latter against the spring i and oscillates said arm D, causing the pawl F to enter into engagement with a new tooth of the ratchet-wheel E^2. Although the arm M is rigidly secured to the arm D, it is adjustable thereon to accommodate any throw of the lock-bolt L. For this purpose it is secured to said arm D by means of a screw m, passing through a slot m^2 in the arm D.

Each of the wheels E B C has ten successive

numerals thereon that can be read through perforations *n* in the face of the lock-strike, the numeral appearing in the present instance being a zero or the starting-number of the indicator.

Having now fully described my invention, I claim—

1. In combination with a lock-strike frame, an arm pivoted therein, indicator-wheels and a ratchet-wheel mounted upon said arm with pawls in engagement with said ratchet-wheel, one end of said pivoted arm being adapted to be forced backward by the bolt of an ordinary lock substantially as described.

2. A lock-strike frame provided with indicator mechanism mounted upon a pivoted arm within said frame, one end of said arm being adapted to be forced backward by the bolt of an ordinary lock substantially as described.

3. In combination with a lock-strike frame, an arm pivoted therein, indicator-wheels mounted upon said arm, one of said wheels carrying a ratchet-wheel, an operating-pawl and a retaining-pawl in engagement with said ratchet-wheel, and a spring bearing against the pivoted arm substantially as described.

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

HOSMER TUTTLE.

Witnesses:
E. M. HANNA,
T. W. ROBINSON.