

(No Model.)

U. V. JAEGLI.

ALARM LOCK.

No. 370,480.

Patented Sept. 27, 1887.

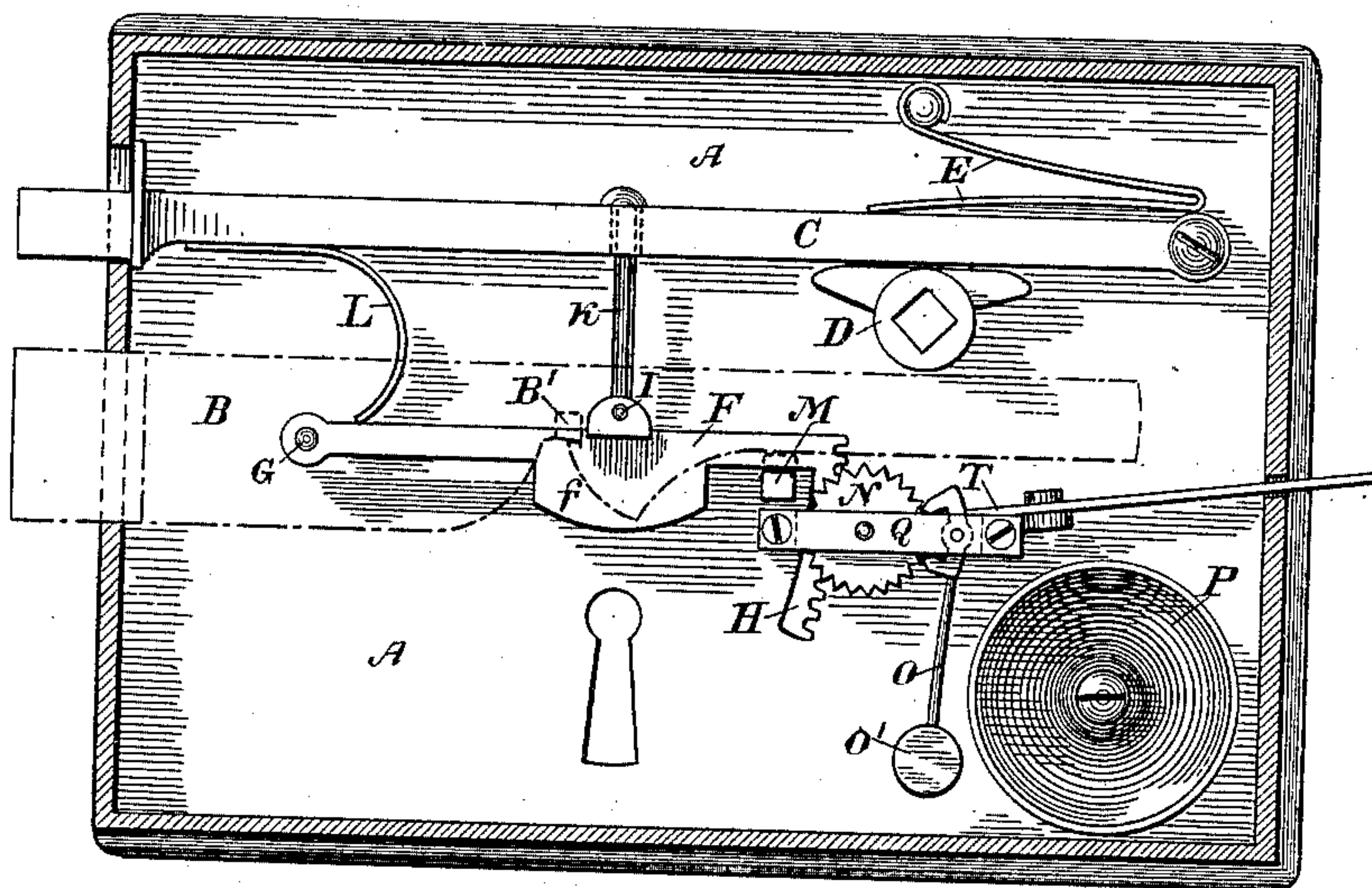


Fig. 1.

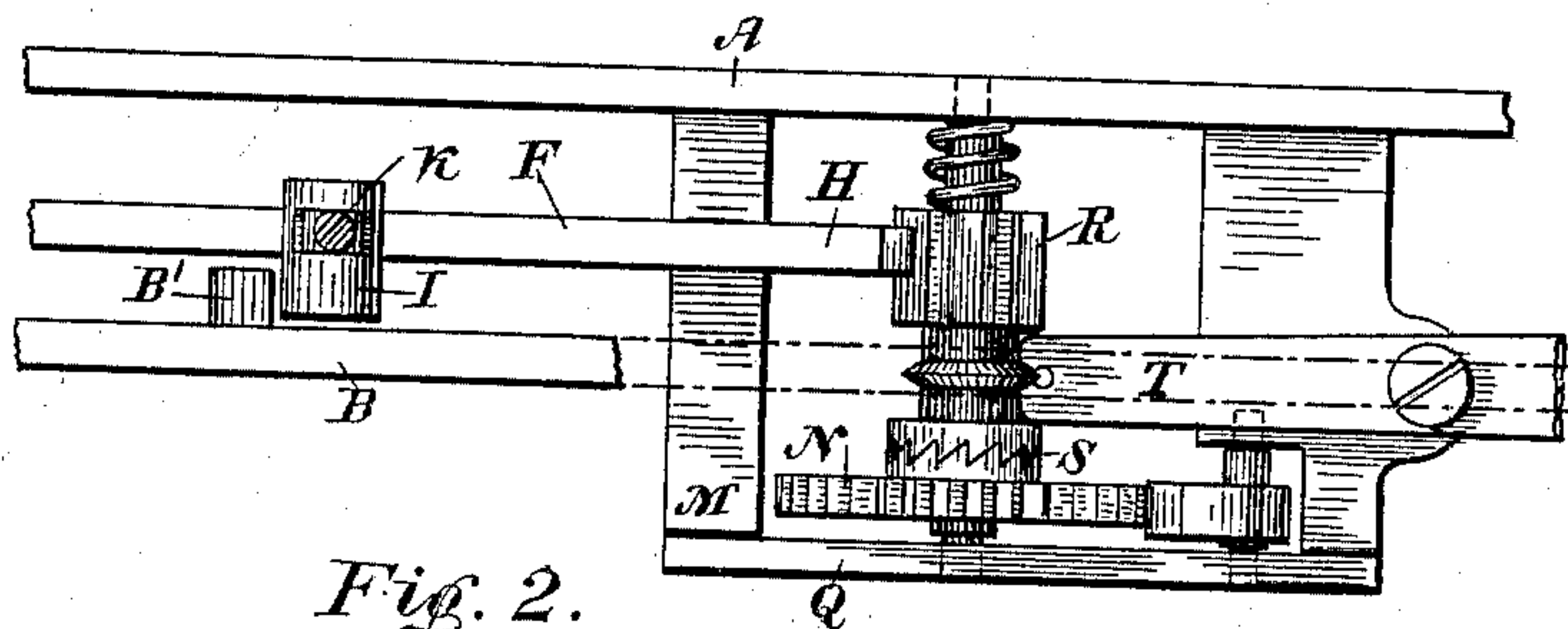


Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## ALARM-LOCK.

SPECIFICATION forming part of Letters Patent No. 370,480, dated September 27, 1887.

Application filed May 26, 1886. Serial No. 203,286. (No model.)

*To all whom it may concern:*

Be it known that I, URS VICTOR JAEGLI, a subject of the Queen of Great Britain, residing at Auburn, in the Province of South Australia, watch-maker, have invented a new or Improved Alarm-Lock, of which the following is a specification.

My invention relates to an improved construction of alarm-locks for doors, safes, or other purposes, whereby the mechanism actuating the alarm is greatly simplified and the cost of its construction materially decreased. In order to accomplish this I dispense with the use of springs and actuate the alarm by means of a lever connected with a bolt and latch of the lock. This lever is so placed that neither the latch nor the bolt can be disturbed without sounding the alarm. Forming part of the lever or attached to it is a rack, which, by means of a pinion, actuates a scape-wheel and pallets and through them a hammer and bell, in the ordinary manner. The pinion of the scape-wheel being attached to a clutch kept in position by a circular spring, can be thrown in and out of gear by a forked lever projecting from the side of the lock-case.

By reference to the accompanying drawings it will be seen that Figure 1 is a sectional elevation of the lock, and Fig. 2 is a general plan of it.

A is the lock-case; B, the bolt having a stud, B', projecting inward; C, the latch; D, the socket of the handle-bar; E, a flat spring actuating C; F, a lever pivoted at G and constructed with a segmental rack, H, and an upwardly-projecting socket, I; K, a rod passing through C, against the upper surface of which its head rests, and connected at its lower end by means of a pin with the socket I; L, a spring actuating the lever F; M, a stud with lock-case, retaining F in position; N, the escapement-wheel of the alarm provided with a laterally-movable pinion, R, attached to a clutch and spring-lever, T, as shown in Fig. 2; O, the vibrating bar, with hammer O' attached; P, the bell; Q, the bridge attached to the lock-case.

Fig. 2 shows the alarm-movements more clearly. H, as before, is the rack; N, the scape-wheel fixed to an arbor pivoted in the lock-case and the bridge Q; R, a movable pin-

ion actuated by the rack H; S, a clutch, half of which is attached to the escapement-wheel N and half to the pinion R; T, a notched spring-lever pivoted on a stud attached to the lock-case, through the side of which its outer end projects, so that the pinion can be thrown in or out of gear at pleasure.

The action of my alarm-lock is exceedingly simple. The alarm being thrown into gear by the lever T, when the handle-socket D is turned it will raise the latch C, drawing up the connecting-rod K. This, as before described, being attached to the rack-lever F, will raise it and cause the escapement-wheel to revolve, and thus sound the alarm. As soon as the handle is released the springs E and L will return the latch and lever F to their former position of rest, at the same time again sounding the alarm. The stud B', projecting inward against the side of the raised socket I, renders it impossible to move the bolt, either in unlocking or locking, without first raising the lever F. F, it will be noticed, is constructed with a lower projection, f, whereon the key presses and raises the lever on being turned. As soon as the lever F is raised, the socket I will allow the stud B' to pass, and the operation of locking or unlocking can be completed. The socket I and the stud B' should extend sufficiently low, that when the lever F is raised the bolt B is still retained in position, the length of the rod K being similarly adjusted. The alarm meanwhile sounds as the lever F rises or falls. The rod K, passing through C, allows the lever to rise without raising the latch. By laterally moving the lever T the clutch may be thrown out of gear and the pinion R allowed to revolve without actuating the escapement-wheel N. Should the latch be raised suddenly or violently, the clutch S, being a serrated gear, as shown in Fig. 2, is so set as to rise out of gear and allow the pinion to revolve, thus preventing breakage of the parts. The alarm will then not sound in the upward motion, but only in the downward.

Having described my invention, I claim—

1. The combination, with an alarm mechanism, of a latch, C, a pivoted rack-lever, F, provided with a socket, I, a rod, K, a stud, M, and actuating-springs E L, arranged and operating substantially as set forth.

2. In an alarm-lock, the combination, with  
an escapement-wheel, N, and a movable pin-  
ion, R, located on the shaft of said escape-  
ment-wheel, of a clutch of serrated form, and  
5 a pivoted clutch-lever, T, substantially as set  
forth.

In witness whereof I have hereunto signed

my name in the presence of two subscribing  
witnesses.

URS VICTOR JAEGGI.

Witnesses:

FRANCIS HUGH SNOW,  
JOHN EDWIN JEFFREYS.