

(Model.)

2 Sheets—Sheet 1.

C. A. DE A. BASTO.
ALARM LOCK.

No. 422,695.

Patented Mar. 4, 1890.

Fig: 1.

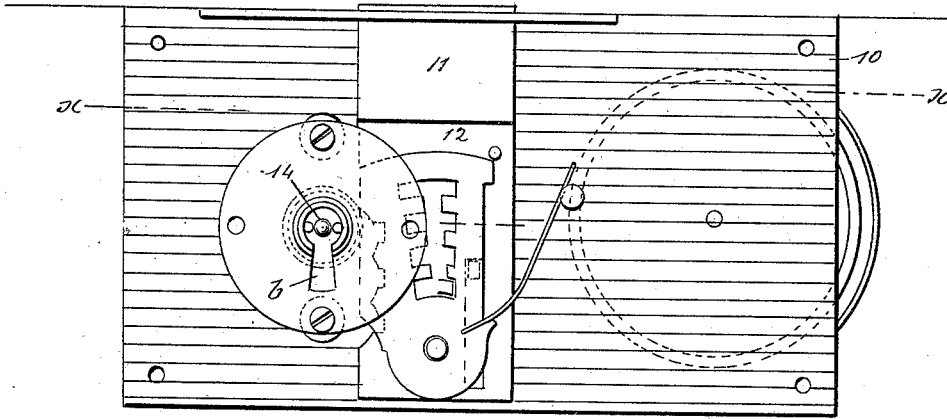


Fig: 2.

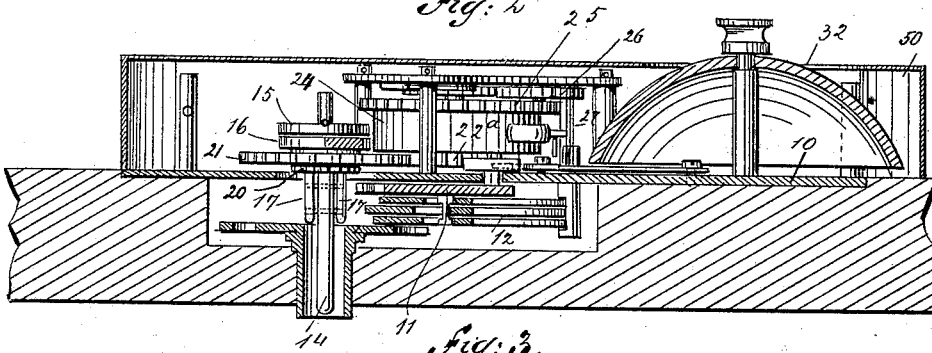
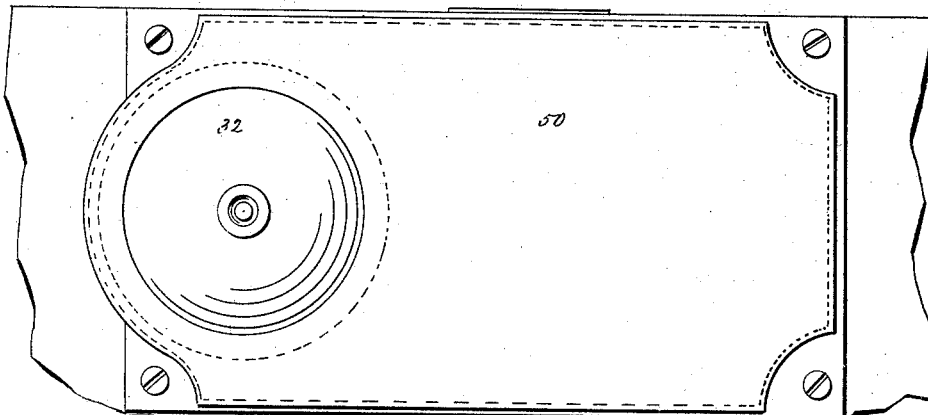


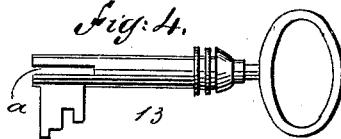
Fig: 3.



WITNESSES:

Chas. K. V. 1890.
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Fig: 4.



INVENTOR:

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(Model.)

2 Sheets—Sheet 2.

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ALARM LOCK.

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Fig. 5.

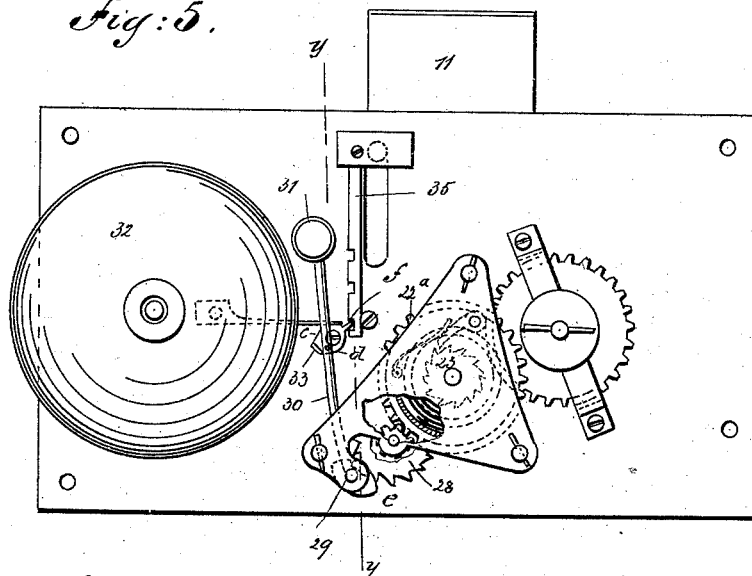


Fig. 7.

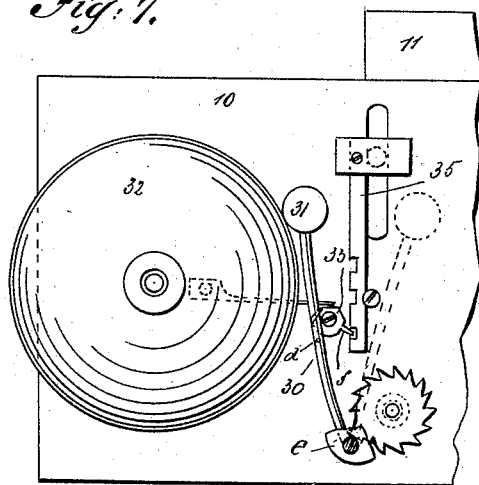


Fig. 6.

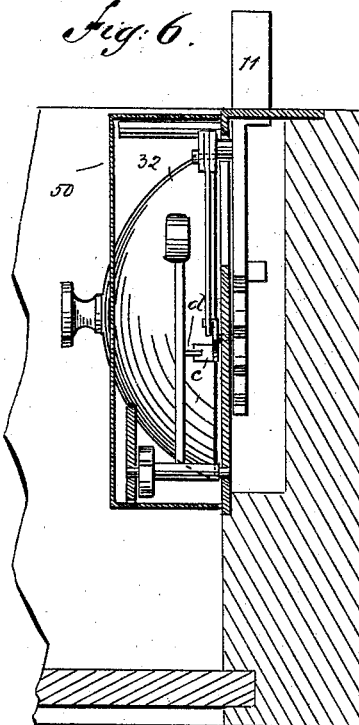
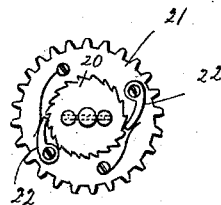


Fig. 8.



WITNESSES:
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INVENTOR:
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UNITED STATES PATENT OFFICE.

CARLOS ACCIOLI DE AZEREDO BASTO, OF RIO DE JANEIRO, BRAZIL.

ALARM-LOCK.

SPECIFICATION forming part of Letters Patent No. 422,695, dated March 4, 1890.

Application filed October 28, 1889. Serial No. 328,447. (Model.)

To all whom it may concern:

Be it known that I, CARLOS ACCIOLI DE AZEREDO BASTO, of Rio de Janeiro, Brazil, South America, have invented a new and Improved Lock, of which the following is a full, clear, and exact description.

My invention relates to alarm-locks, and is an improvement on my English patent, No. 17,560, dated December 1, 1888.

The invention will be first described in connection with the drawings and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a face view of an alarm-lock constructed to embody my invention. Fig. 2 is a sectional view on line *xx* of Fig. 1. Fig. 3 is a view of the inner face of the lock. Fig. 4 is a view of the key. Fig. 5 is a view of the inner face of the lock, the guard or shield plate being removed and the parts being represented as they appear when the locking-bolt is thrown to the locking position. Fig. 6 is a cross-sectional view on line *yy* of Fig. 5. Fig. 7 is a view of the alarm mechanism as it appears when the bolt is moved partially downward, and Fig. 8 is a view of the ratchet arranged in connection with the key-standard.

In the drawings, 10 represents a lock-plate, upon which there is mounted a locking-bolt 11, and in connection with this bolt I arrange a series of tumblers 12, that are thrown to proper position to permit the upward movement of the bolt by a key 13, which said key is arranged to engage a post or standard 14, the post or standard being located in a position such that as the key is turned it will bear against the tumblers 12. Any proper construction may be employed, so that in turning the key the post or standard will be turned.

In the drawings I have represented the post or standard as being secured to a disk 15, which is upheld by a bracket 16, the post or standard being provided with two side auxiliary standards 17, which fit in side slots *a*, that are formed in the key-barrel, the arrangement being such that the key cannot be withdrawn from the lock, except at times when

the post or standard is brought to a position such that the key-ward will register with the slot *b*, formed in the facing-plate or the escutcheon.

The post or standard 14 carries a ratchet 20, said ratchet being rigidly connected to the post or standard, and upon the post or standard there is loosely mounted a gear 21, which carries pawls 22, said pawls being arranged to engage the ratchets, the arrangement being such that when the key is turned in one direction the gear will be advanced, but when the key is turned in the other direction the gear will remain stationary, the pawls in the latter case slipping upon the ratchets.

The gear 21 engages a gear 22^a, carried by a shaft 23, upon which there is mounted a spring-barrel 24, carrying a gear 25, that engages a pinion 26, carried by a shaft 27, upon which there is mounted a ratchet or scape wheel 28.

In connection with the scape wheel 28, I arrange an escapement-lever *e*, that is carried by a shaft 29, which shaft carries a hammer-arm 30, as shown in the drawings. The hammer 31, carried by the arm 30, is arranged to strike against a gong 32 as the ratchet operates the escapement-lever.

In order that the ratchet may be held from vibration at all times, except when the bolt is moved partially downward, I mount a bolt 33, which has a lateral lip or flange *c*, which said lip or flange is engaged by a projection *d*, carried by the hammer-arm 30. The flange *c* has a tongue *f*, which rides in a notch formed in a bar 35, that is rigidly connected to the bolt 11, the parts being so located and proportioned that when the bolt is up the projection *d* will bear against the lip or flange *c*, as shown in Fig. 5, but when the bolt is turned partially downward the catch 33 will be carried so that the projection *d* will be freed from the lip or flange *c*, and the spring of the drum will act through the intermediate gearing to turn the ratchet or scape wheel, and an alarm will be sounded.

In the particular construction of lock illustrated in the drawings it requires three turns of the key to carry the bolt home. The alarm mechanism will be inclosed in a case 50, as represented in the drawings.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In an alarm-lock, the combination, with
5 the lock-bolt and the hammer of the alarm mechanism, of a bar connected to the lock-bolt and a bolt adapted to engage the hammer-arm and the bar connected to the lock-bolt, substantially as and for the purpose set
10 forth.
2. The combination, with a lock-bolt and a means for operating said bolt, of an alarm-op-

erating mechanism, a bar connected to the lock-bolt and formed with notches, and a catch formed with a projection *f*, which enters the
15 said notches, and with a lip or flange that is at times engaged by a projection carried by the hammer-arm of the alarm mechanism, substantially as described.

CARLOS ACCIOLI DE AZEREDO BASTO.

Witnesses:

JULES GÉRAUD,
CH. BAILEY.