Jan. 29, 1924. 1,482,298

B. GREENISON

LOCK

Filed March 30, 1922

Fig. 1.

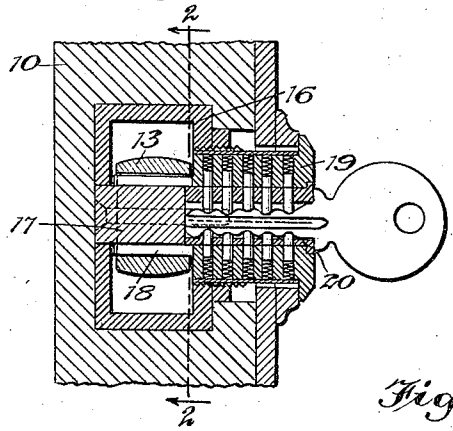


Fig. 3.

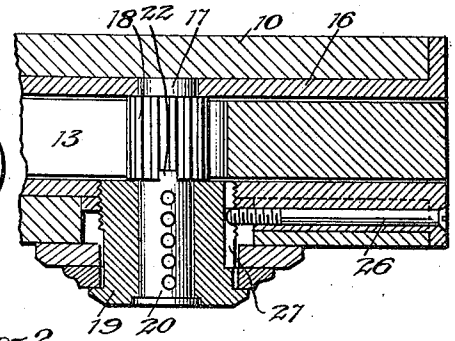


Fig. 2.

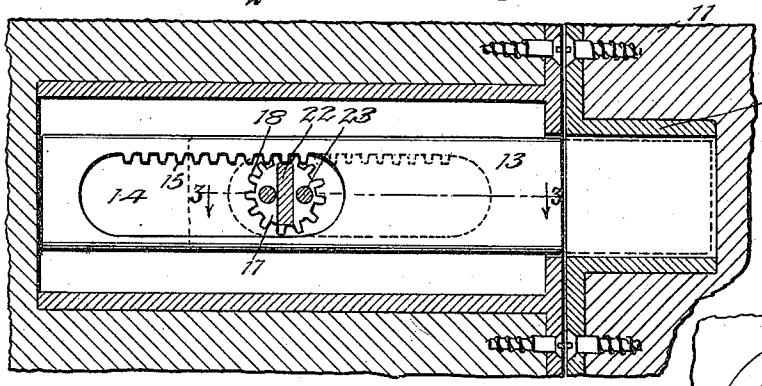


Fig. 4.

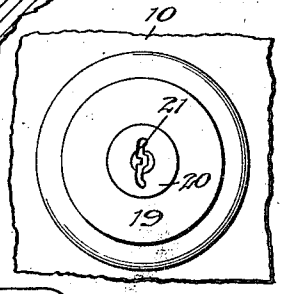


Fig. 5.

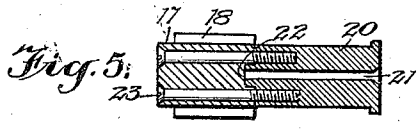


Fig. 6.

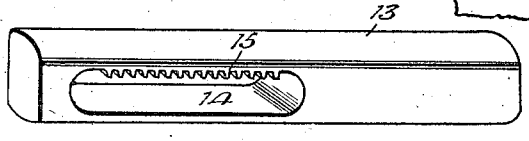
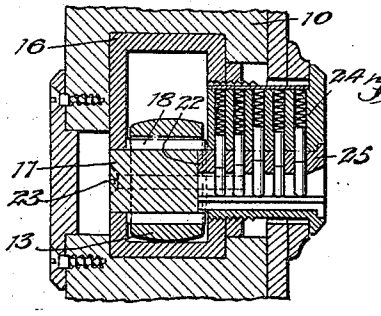


Fig. 7.



WITNESSES

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Patented Jan. 29, 1924. 1,482,298

UNITED STATES PATENT OFFICE.

BURT GREENISON, OF NEW YORK, N. Y.

LOCK.

Application filed March 30, 1922. Serial No. 548,012.

To all whom it may concern:

Be it known that I, BURT GREENISON, a citizen of the United States, and resident of the city of New York, borough of Manhattan, county of New York, and State of New York, have invented a new and Improved Lock, of which the following is a full, clear, and exact description.

My invention relates to a lock and aims to provide certain new and useful improvements in connection with devices of this character, and more particularly over my prior Patent No. 1,409,094 issued March 7, 1922, it being understood that the present lock has as one of its objects the provision of a construction which will virtually preclude any danger of the lock being forced.

More particularly it is an object of the present invention to provide a lock having objects similar to that stated in my previous patent, but which shall, in addition present more simple construction than that proposed in the patent afore-referred to.

As a further object of the present invention, I aim to provide a device of the character stated in which the operating structure will be retained in a more secure manner in assembled relation, and in which the operation of the parts with one another is materially simplified.

Further objects of this invention will appear in the annexed specification taken in connection with the drawings, which latter illustrate practical embodiments of the same, and in which:

Figure 1 is a sectional side view of a lock embodying my improved construction.

Figure 2 is a sectional face view taken along the line 2—2 and in the direction of the arrows illustrated in Figure 1.

Figure 3 is a sectional plan view taken along the line 3—3 and in the direction of the arrows illustrated in Figure 2.

Figure 4 is a face view of the exterior portion of the lock.

Figure 5 is a sectional view of a detail of construction.

Figure 6 is a perspective view of a bolt, and

Figure 7 is a view of the device as illustrated in Figure 1 but showing a slightly modified form of construction.

In these views it will be seen that the reference numeral 10 indicates the member with which my improved lock is associated, and 11 that member with respect to which the member 10 is to be rendered immovable by the actuation of the lock.

As in my previous construction, a keeper 12 is associated with the member 11 and the lock serves to actuate a bolt 13 adapted to be projected into the keeper by mechanism hereinafter described, it being noted that the said bolt is also preferably provided with an opening 14 presenting inwardly extending teeth 15 which are adapted to be engaged by a sprocket.

Referring to the detailed construction of the lock it will be seen that the same preferably includes, as in my previous patent, a casing 16, but contrary to this previous construction, the sprocket member and operating parts therefor comprise a plurality of sections, so that the said sprocket member may be more readily applied to the bolt, and further to avoid complication in manufacture it being understood that the present lock is preferably of the mortice type. Thus this member includes essentially a shaft 17 provided upon its exterior face with a series of radially extending teeth 18, and being also conveniently provided with a transversely extending slot in its inner end portion. The lock 19 is provided in the usual manner with a rotatable sleeve 20, which in turn presents a key-way 21, and the inner end of this sleeve 20 is formed with a tongue 22 adapted to extend into the transversely disposed slot of the shaft 17. Thus it will be obvious that the shaft 17 and sleeve 20 will be rendered immovable with respect to each other, and these members may be coupled together by utilizing screws 23 which have their bodies extending through openings in the shaft 17, while their inner ends extend into suitable screw threaded openings in the sleeve 20.

Thus it will be obvious that the shaft 17 and sleeve 20 may be detachably secured together, which will primarily result in a reduction of the cost of manufacture, and will consequently permit of the lock being readily assembled and applied to the member 10.

It will also be seen that one of the benefits derived by the use of my improved type of lock is to be predicated on the fact that the sleeve 20 is preferably centrally disposed with respect to the casing 19, as in Figures 1 to 4 and thus it will be obvious that it will not be necessary to provide a main opening in the parts for the reception of the lock proper, while a second eccentrically

disposed opening must be made to accommodate the sprocket member.

Finally as in Figure 7 I have shown the type of lock similar to that illustrated in my previous patent, with the exception of the improvement in connection with the sprocket member, it being noted that the reference numeral 24 in this case indicates the lock, adjacent the lower end of which the sleeve 25 is disposed, the latter being coupled to the sprocket member, which serves to operate the bolt.

Further it will be appreciated, in any instance, that a locking member such as a screw 26 may be extended through the edge of the closure member 10 and into engagement with a groove 27 which interrupts the usual threads on the exterior of the lock, thus making it necessary to have the member 10 in non-aligned or open position with respect to the member 11 to permit of this groove being reached, and the lock removed.

Thus all of the objects of this invention have been accomplished and it will further be understood that numerous modifications of structure might readily be resorted to without in the least departing from the scope of my claims which are—

1. In a lock having a sliding bolt formed with rack teeth, means for operating said bolt, said means comprising a gear adapted to engage said rack teeth, said gear having a recess formed in one of its side faces, an operating member for said gear, a projection formed on the gear operating member and adapted to be received in the recess formed in the gear whereby the gear and its operating member are interlocked, and a plurality of bolts passing through said gear and having threaded engagement with said operating member to retain said gear and operating member in interlocked relation.

2. In a lock having a reciprocating bolt provided with rack teeth, means for reciprocating said bolt, said reciprocating means comprising a gear adapted to mesh with the rack teeth of the bolt, said gear having an elongated recess extending across one of the side faces, an operating member having a projection on one of its ends, said projection being of a shape corresponding to the shape of said elongated recess in the gear and adapted to be received therein to establish operative connection between said gear and operating member, and fastening means in the form of a plurality of bolts extending through said gear and having threaded engagement with internally threaded recesses in the operating member for securing the gear and its operating member together in operating relation.

BURT GREENISON.