July 17, 1923.

1,462,238

C. R. MENNILLO

SPARE TIRE LOCK

Filed May 18, 1922

Fig. 1.

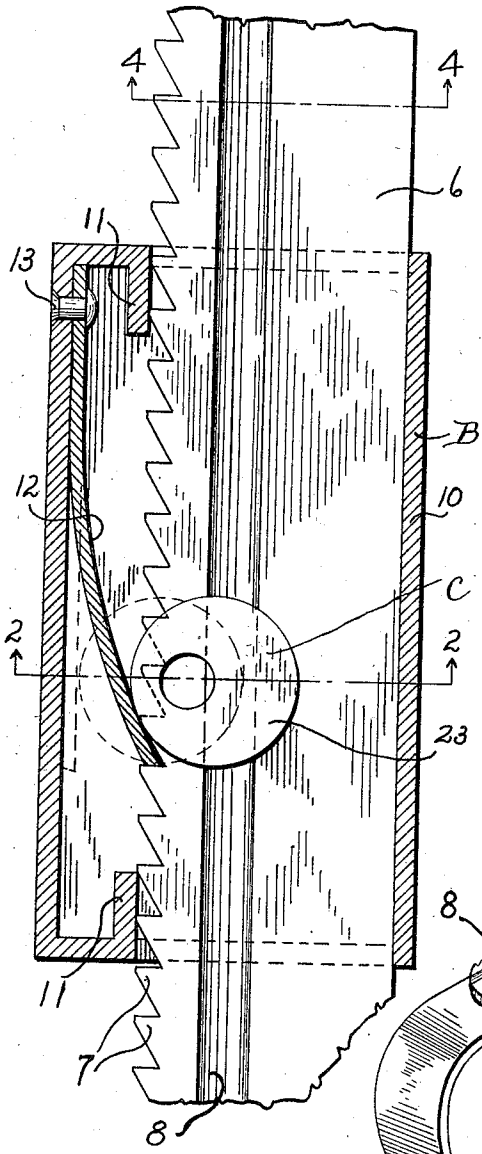


Fig. 2.

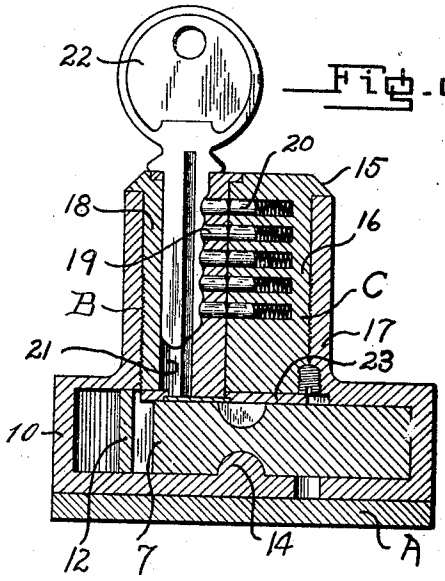


Fig. 3.

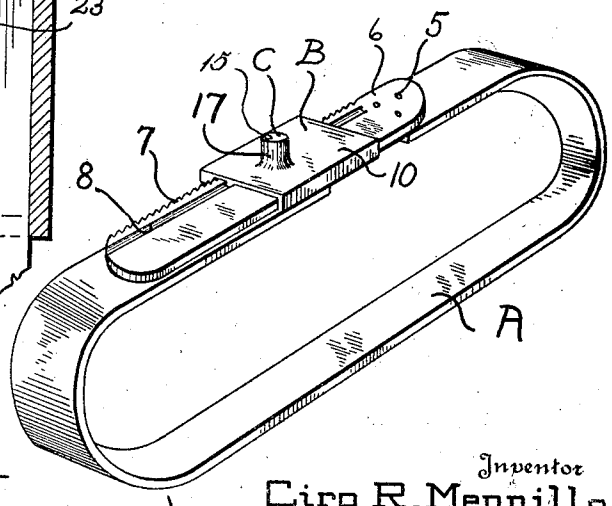
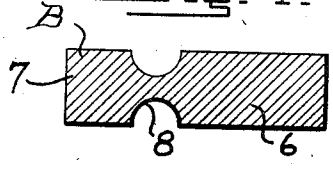


Fig. 4.



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UNITED STATES PATENT OFFICE.

CIRO R. MENNILLO, OF NEW CITY, NEW YORK.

SPARE-TIRE LOCK.

Application filed May 18, 1922. Serial No. 561,976.

To all whom it may concern:

Be it known that I, CIRO R. MENNILLO, a citizen of the United States, residing at New City, in the county of Rockland and State of New York, have invented certain new and useful Improvements in Spare-Tire Locks, of which the following is a specification.

This invention relates to securing means, and the primary object of the invention is to provide a novel lock for preventing the removing of spare tires from tire carriers and the like, but which is so constructed that the same can be used for other purposes.

A further object of the invention is the provision of a flexible metallic band for engaging about an object having novel means for securing the band terminals together to prevent disengagement of said terminals by unauthorized persons.

A still further object of the invention is the provision of a securing device embodying a flexible steel band having a rack bar associated with one end thereof, and a lock casing associated with the other end thereof for slidably receiving the rack bar, the casing having novel locking means for engaging said rack bar to prevent the withdrawal thereof from out of said casing.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed and illustrated in the accompanying drawings, forming a part of this specification, in which drawings:

Figure 1 is a longitudinal section through the improved securing device, showing the novel locking means carried thereby.

Figure 2 is a transverse section through the improved locking means taken on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the improved securing means, and

Figure 4 is a detail transverse section through the improved securing means, taken on the line 4—4 of Figure 1.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates the flexible means for engaging about the body to be secured; and B, the novel means for securing the terminals of the flexible members together.

The flexible member A is preferably formed of steel or the like so as to prevent the ready cutting thereof by malicious persons. This body is preferably formed of a relatively thin material, so as to permit the ready placing thereof about the objects to be secured. One terminal of the band has riveted or otherwise secured thereto, as at 5, a bar 6, which is provided with a locking rack 7. The opposite faces of the bar 6 has formed therein the longitudinally extending guide grooves 8, the purpose of which will be hereinafter more fully described.

The novel locking means B includes a housing 10, welded or otherwise secured to the terminal of the band A opposite to the terminal to which the rack bar 6 is secured. This housing 10 has a way therethrough to receive the rack bar 6, and if so desired, the end walls of the housing 10 can be provided with inwardly extending lips 11 to overlie the rack 7 formed on the bar 6 to prevent the forcing of instruments into the housing 10 near the rack 7. Disposed within the housing is a resilient pawl 12, the free end of which is adapted to engage the teeth of the rack 7 to prevent movement of the housing 10 in one direction.

This resilient pawl 12 can be secured in place in the housing by any suitable means, such as a rivet 13. It is obvious that when the bar 6 is slid into the housing 10, withdrawal of the bar from the housing will be precluded by the said pawl 12. In order to form a guide for the housing 10 during the sliding of the bar 6 therein, the same can be provided with ribs 14 for engaging in the guide grooves 8.

A novel means C is provided for actuating the resilient pawl 12, and this means consists of a cylinder lock 15. This lock 15 includes a cylinder 16 which is secured in any preferred manner in the laterally extending housing 17 formed on the housing 10. The cylinder 16 rotatably receives the plug 18 which carries the locking tumblers 19. The cylinder 16 is provided with spring pressed drivers 20 as in the usual construction. The plug 18 is provided with a longitudinally extending key way 21 for the reception of a key 22, which is adapted to actuate the tumblers 19 in order to permit the turning of the plug 18. The inner end of the plug 18 is provided with a cam 23. This cam 23 is disposed in the path of the pawl 12 so that when the plug 18 is turned by the key 22, the cam 23 will raise the pawl out of engagement with the rack 7 to

permit the sliding of the casing 10 from off the bar 6.

It is obvious that the housing 10 can be slid on the bar 6, until the strap or band A has been drawn into tight contact with the device to be locked.

The use of the improved securing device is practically unlimited, as the same can be used around trunks, boxes and the like and the same is particularly adapted for use with spare tires for locking the same on the tire carrier to prevent the removal of the tire by unauthorized persons.

Changes in details may be made without departing from the spirit or the scope of this invention; but,

I claim:

1. A securing device comprising a flexible steel band, a housing secured to one terminal of the band, a rack bar secured to the other end of the band for slidable association with the housing, and laterally extending casing formed on one side of the housing, a cylinder lock disposed in the casing including a rotatable key operated plug, a resilient pawl disposed in said housing for engaging the rack bar, and a cam secured to said rotatable plug and disposed in the path of the pawl for moving the pawl out of engagement with said rack.

2. A securing device comprising a flexible steel band, a housing permanently secured to one terminal of the band, a rigid fastening bar permanently secured to the other end of the frame, said bar having one longitudinal edge thereof provided with a plurality of rack teeth, a laterally extending casing formed on one side of the housing, a cylinder lock disposed in the casing including a rotatable key operated plug, a resilient pawl disposed in said housing, means rigidly securing one end of said pawl to said housing, the other end of said pawl being adapted to engage said rack teeth, and a cam secured to said rotatable plug and disposed in the path of the free end of the pawl for moving the pawl out of engagement with said rack bar.

3. A securing device comprising a flexible steel band, a sheet metal housing permanently secured to one terminal of the band having a longitudinal way extending therethrough and including flat upper and lower walls, longitudinally extending side walls and end walls, the end walls having openings therein communicating with said way, a resilient leaf spring secured to one longitudinal side wall at one end thereof, a rack bar rigidly secured to the other terminal of the band for sliding movement in said way, locking means carried by said housing for engaging said spring for moving the same out of the path of the rack bar, and inwardly extending lips carried by the end walls arranged in relatively close engagement with the rack teeth of said rack bar and disposed in parallel relation with the longitudinal edges of said rack bar.

CIRO R. MENNILLO.