D. B. CAMPER.

AUTOMATIC CATCH OR LOCK.

APPLICATION FILED AUG. 9, 1916.

1,252,776. **Patented Jan. 8, 1918.**

Fig. 1.

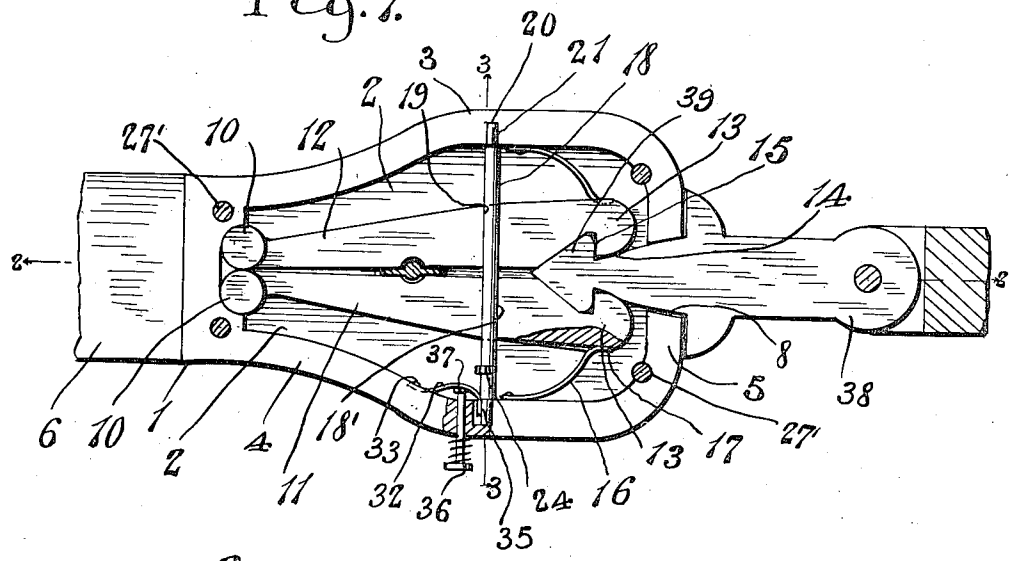


Fig. 2.

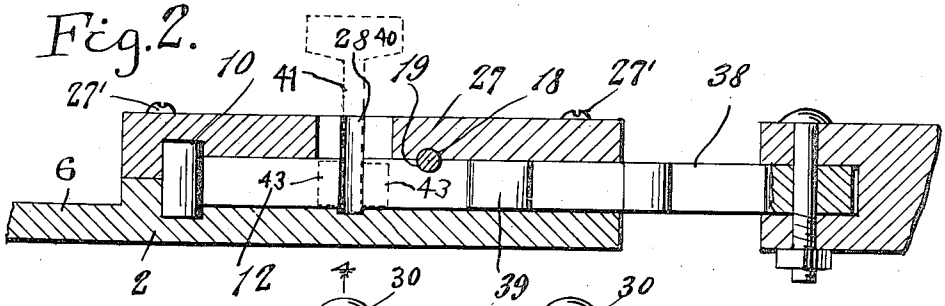


Fig. 3.

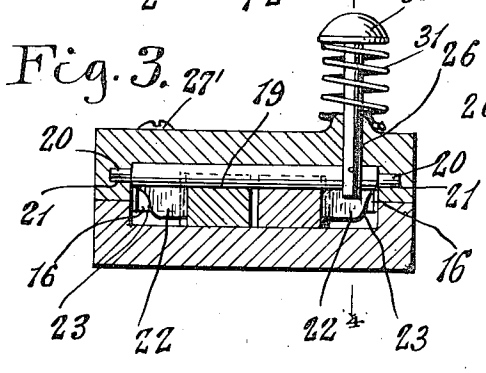
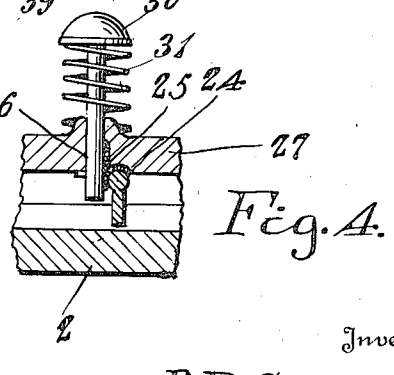


Fig. 4.



Inventor

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Witness:-

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AUTOMATIC CATCH OR LOCK.

1,252,776. Specification of Letters Patent. Patented Jan. 8, 1918.

Application filed August 9, 1916. Serial No. 113,988.

To all whom it may concern:

Be it known that I, DORSEY B. CAMPER, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Automatic Catches or Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in automatic catches or locks.

The object of this invention is to provide an automatic catch or lock of this character which will be easily and quickly assembled and its operation assured.

A further object of this invention is to provide a lock or catch of this character which may be used on garages, houses, car doors and for many other uses and one that may be readily manufactured and manipulated for releasing and permitting the opening of the doors, and one which the lock or catch will be held in position by a locking bar.

A further object of this invention is to provide a simple, practical, and comparatively inexpensive structure which may be easily and quickly secured in place and its cost reduced to a minimum.

With these and other objects in view the invention consists in the novel combination and arrangement of parts hereinafter more fully described and pointed out in the claims hereto appended.

In the drawings:

Figure 1 is a top plan view of my improved lock or catch with the cover of the casing removed.

Fig. 2 is a longitudinal sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1, and

Fig. 4 is a vertical sectional view taken on the line 4—4 of Fig. 3.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

Referring to the drawings, the numeral 1 designates a casing comprising a bottom wall 2, side walls 3 and 4, and front and rear walls 5 and 6. The front wall 5 is provided intermediate its ends with a latch opening 8. The bottom 2 is provided near its rear end with a recess in which are rotatably seated the rear cylindrical ends 10 of a pair of coöperating locking jaws 11. The locking jaws 11 comprise the shanks 12 having the curved rear ends enlarged and provided with a laterally projecting cylindrical barrel 10 thereon, one barrel of each jaw being removably and rotatably seated in the recess 9. The forward ends of the locking jaws are enlarged to form engaging heads 13 having relatively reversably curved faces 14 which provide the shoulders 15, the jaws are adapted to swing toward and from each other and are normally forced toward one another by the springs 16. The springs 16 have curved body portions and have one of their ends secured to the inner faces of the side walls at diametrically opposite points. The free ends of the springs are bent angularly to provide the jaw engaging portions 17, which portions extend toward and are in abutting engagement with the outer longitudinal sides of the locking jaws near their forward ends, to normally force the jaws toward one another.

The upper surface of the jaws 11 are provided with transversely extending grooves 18 and 18′ in which is rotatably seated the jaw locking bar 19, which bar is cylindrical in cross section and is provided at opposite ends with the reduced tongues 20, which are journaled in the recesses 21 formed in the inner faces of the side walls of the casing near the front ends thereof.

The locking bar 19 is provided near each end with a depending jaw engaging flange 22, the outer sides of which flanges are curved as at 23, the purpose of which will be hereinafter more fully described.

The bar is provided near one end with a pinion 24 which meshes with the rack 25 carried by a pin 26 which extends vertically through a cover 27 carried by the casing 1.

The cover 27 is secured to the upper edges of the side, front and rear walls of the casing 1 by screws or other suitable fastening means 27′. The cover is also provided centrally with an opening 28. The pin 26 extends vertically through the cover near the forward end thereof, the outer end of which is provided with a suitable button 30 for the moving in and out of the pin. A coil spring 31 surrounds the pin 26 and has one end secured to the outer surface of the cover 27 and its opposite end abutting the underside

of the button to normally hold the pin out so as to hold the flanges in abutting engagement with the jaws and prevent movement of the same.

A spring 32 has one end secured to the inner face of the side wall 4 as at 33, and its free end is directed toward the locking bar and has its extreme end bent angularly as at 35 for engagement with one of the flanges to hold the bar against rotation.

A pin 36 extends transversely through the side wall 12 near its forward end and has its inner end secured to the spring 32 as at 27, said pin adapted to be moved inwardly to release the spring 32 from engagement with the locking bar and permit the pin 30 to be forced inwardly moving the flanges out of engagement with the locking jaws.

A latch bar 38 is provided with an arrow head 39 which is adapted to be engaged by the shoulders 15 of the locking jaws.

A key 40 is provided with a shank 41 and extends through the central opening of the cover and has its inner end located between the locking jaws. The inner end of the shank is provided with a laterally offset lug 43 which is adapted to engage the jaws for moving the same away from one another for the releasing of the latch 38.

In operation:

The key is extended through the cover 27 into and between the jaws, the pin 30 is then forced inwardly moving the flanges to a horizontal position, the latch bar 38 is then extended through so as to be in engagement with the jaw. The pin is then released and the flanges turned downwardly engaging the jaws and the spring 32 is in engagement with the locking bar preventing the separation of the jaws and rotation of the bar 19. To release the latch, the pin 36 is forced inwardly forcing the spring out of engagement with the flange and the pin 30 is forced inwardly against the tension of the spring 31 thereby meshing the rack with the pinion and turning the flanges in a horizontal position and the key 40 is then turned and the jaws are forced apart and the latch released.

What is claimed is:

1. A lock including a casing, a cover for said casing, coöperating jaws movable within the casing, a locking bar journaled in the casing and arranged transversely across the upper face of the jaws, spring means for normally urging the jaws toward one another, said locking bar having flanges engaging the jaws holding the same against separation, and means for holding the bar against rotation and means for releasing the holding means, and means extending through the casing for rotating the locking bar upon the releasing of the holding bar permitting the separation of the jaws.

2. A lock comprising a casing, coöperating jaws arranged in the casing, a locking bar journaled in the casing and extending transversely across the jaws, springs arranged in the casing having one end abutting the jaws for normally urging the same toward one another, said locking bar having depending flanges engaging the longitudinal sides of the jaws for holding the same against separation, spring means within the casing and engaging the flanges to hold the bar against rotation, a pinion carried by the locking bar, a pin provided with a rack extending through the casing, said rack adapted to mesh with the pinion for rotating the flanges for releasing the jaws, and means for moving the jaws away from one another.

3. A lock of the class described including a casing, a cover for said casing, coöperating locking jaws rotatably mounted in the casing, springs arranged in the casing and abutting said jaws for normally urging the same toward one another, a locking bar journaled transversely across the casing and arranged on the under surface of the jaws, depending flanges carried near the opposite ends of said bar, said flanges engaging the longitudinal sides of the jaws for holding the same against separation, a spring arranged in the casing, said spring having one end abutting the flanges for preventing rotation of the bar, means extending transversely through one side wall of the casing and connected to the spring for moving the same out of engagement with the locking bar to permit the separation of the jaws, and means extending through the cover of the casing for rotating said locking bar.

4. A lock including a casing, locking jaws loosely journaled in the casing, springs arranged in the casing and abutting the outer sides of the jaws for normally urging them toward one another, a locking bar journaled transversely in the casing upon the upper sides of the locking jaws to retain them against outward movement with relation to each other, means for holding the locking bar against rotation, means for rotating the locking bar to release the locking jaws, and means extending into the casing between the opposing faces of the jaws for moving them outwardly with relation to one another.

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

DORSEY B. CAMPER.

Witnesses:
Mrs. F. M. Blackman,
Fred Petors.