No. 886,165. PATENTED APR. 28, 1908.

E. E. VORE.

LOCKING DEVICE.

APPLICATION FILED OCT. 29, 1907.

Fig. 1.

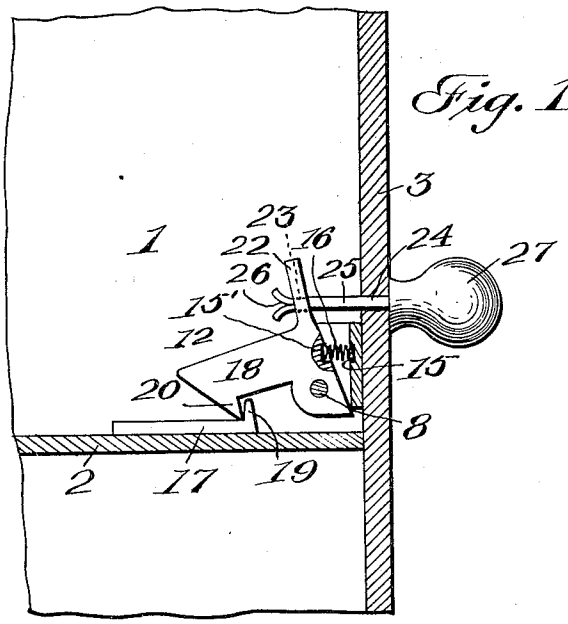


Fig. 2.

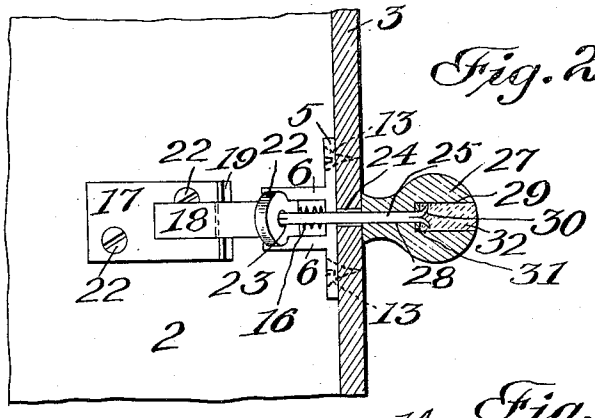


Fig. 5

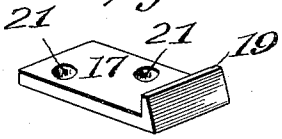


Fig. 4.

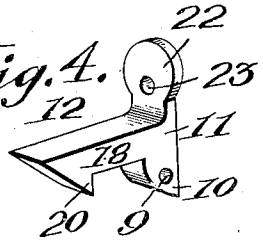
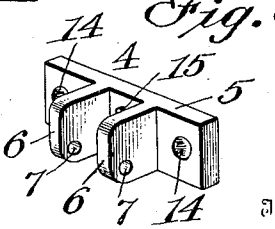


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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LOCKING DEVICE.

No. 886,165. Specification of Letters Patent. Patented April 28, 1908.

Application filed October 29, 1907. Serial No. 399,693.

To all whom it may concern:

Be it known that I, ERNEST E. VORE, a citizen of the United States, residing at Huntington Park, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Locking Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improvement in devices for locking a door or drawer, or the like, and particularly to a combined lock, and door or drawer opening device.

The object of the invention is the provision of means for facilitating the unlocking of a door and synchronously opening the same.

Another object of the invention is the improvement of the construction of a combined locking device and knob, whereby, when a pull is exerted upon the knob, the lock will be actuated for releasing the door or drawer, and as the pull is continued, the door or drawer will be opened.

With these and other objects in view, the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a fragmentary view of the device constructed in accordance with the present invention, parts being shown in section. Fig. 2 is a horizontal, fragmentary, sectional view of the structure depicted in Fig. 1. Fig. 3 is a perspective view of the bracket. Fig. 4 is a perspective view of the latch. Fig. 5 is a perspective view of the catch-plate.

Referring to the drawings by numerals, 1 designates, preferably, the side of a compartment or cabinet, and 2 the partition or floor. A door 3 is movably secured to the sides or walls 1 of the cabinet or compartment in any ordinary manner, but, I wish it to be understood that the door 3 represents a movable member, as for instance, a hinged door or the front of a drawer carrying a part of my improved locking device. I merely show the door or movable member 3 in combination with the stationary support, partition or floor 2, for the purpose of illustrating the operation of my invention.

In carrying out the present invention, I have produced a bracket 4, which comprises a base 5 and extending therefrom upon one side are parallel, flat portions or lugs 6. Each lug or flat portion 6 is provided near its lower edge with a horizontal aperture 7; the apertures 7 formed in the same horizontal plane, and, of course, registering, for the reason that I support therein a horizontal pin or pintle 8, which pin 8 also extends through the horizontal aperture 9 formed near the lower extension 10 of the body portion 11 of the latch 12.

The bracket 4 is secured to the door or movable support 3 by any suitable fastening means, as for instance, screws 13, Fig. 2, placed in the horizontal apertures 14, which apertures are, preferably, formed near the ends of the base 5. The flat, vertical base 5 is provided, upon its inner face, between the two flat lugs 6 with a socket or cut-out portion 15, and in the inner face of the body 11, there is also formed a cut-out portion or socket 15; within the sockets 15 and 15′ are positioned the ends of, preferably, a brass or steel coiled spring 16. It will be obvious that the spring can not be easily removed from off the bracket or latch, and, furthermore, that the spring is carried above the pin or pintles 8 and below the upper edges of the lugs or flat portions 6, thereby exerting, at all times, an outward pressure upon the latch for holding the latch in engagement with the catch-plate 17. The lower ends 10 of the latch 12 extends a sufficient distance below the horizontal hook 18 of the latch for engaging the lower edge of the base 5, Fig. 1, and thereby limiting the downward pivotal movement of the latch 12 upon the pin or pintle 8, although, there is sufficient rotary movement permitted for allowing the outer end of the latch to slide over the projection 19 formed on the catch-plate 17. It will be obvious that the catch-plate, with its projection 19, constitutes a socket or recess of any ordinary type, into which the hooked end 20 of the latch extends.

The catch-plate 17 is, preferably, provided with a plurality of vertical apertures 21, within which are secured screws 22, Fig. 2, for fastening the plate to the support, partition or floor 2.

The latch is provided with a vertical, upwardly extending finger-portion 22, which extends from the body portion 11 upon the side of the latch portion 18 opposite to the downwardly-extending portion or end 10. A horizontal aperture 23 is formed in the finger portion 22. The door or movable support 3 is provided, preferably with a horizontal aperture 24 formed in substan-

tially the same horizontal plane with aperture 23 and within these apertures 23 and 24, there is positioned, preferably, a horizontal shank or rod 25. The inner end of the shank 25 is bifurcated or split, at 26, and these split portions are bent outward for forming a fastening, whereby the shank is normally prevented from being drawn out of the aperture 23, and consequently assembling the shank 25 with the latch 12. A knob 27, formed of any suitable material, is positioned against the outer face of the support or door 3. The knob 27 is provided with a longitudinally-extending aperture 28 of smaller diameter or dimension than the aperture 29. The outer portion of the shank 25 extends through the aperture 28 and its bifurcated portion or end 30, extends into the aperture 29. Prior to the bending of the split portions outward for forming the lock, I, preferably, place a metallic washer 31 upon the shank at the inner end of aperture 29, and when the portions of the bifuracted end 30 are bent outwardly, the shank is securely assembled with the knob 27. To reinforce the fastening and the outer split end of the shank and also to prevent the knob from being accidentally removed, I provide filling means 32, as for instance, solder, for the aperture 29; the filling means entirely surrounding the outer split or bifurcated end of the shank 25. Furthermore, it will be noted that the filling means, together with the washer 31, prevents the knob from having a sliding movement upon the shank 25, and thereby materially strengthening the fastening means, whereby said shank or rod 25 and knob 27 are fixedly secured together. By pulling outward on the knob 27, the latch will be released from the catch-plate, and if the pull is continued, the member or door 3 will be moved outward.

It will be noted that the body 11 of the latch 12 is positioned between the flattened portions or lugs 6, and that said lugs constitute a guide for the entire body, thereby greatly reinforcing and strengthening the structure, as no lateral play will be permitted; besides the lugs 6 constitute a casing for the spring 16, whereby the same can not be tampered with, nor accidentally removed from its normal position between the body 11 and the base 5.

What I claim is:

1. A device of the character described, comprising a bracket, a catch-plate normally in engagement with said latch, a shank or rod secured near one end to said latch, a knob provided with apertures of different dimensions positioned upon said shank or rod, the shank extending entirely through one aperture and having one end positioned in the other aperture, a washer upon the shank within the last-mentioned aperture, the end of the shank within the aperture being bifurcated or split, and the bifurcated portion bent outwardly, and filling means in said last-mentioned aperture and in engagement with the bifurcated or split end.

2. In a locking device, the combination with a support and a movable member or door carried thereby, a bracket provided with parallel lugs, carried by said door or movable support, said lugs provided near their lower edge with registering apertures, a latch positioned between said lugs, fastening means extending through said latch and through said apertures, said latch provided with a depending portion adapted to engage the lower end of said bracket for limiting pivotal movement of the latch, a spring interposed between the lugs and the base of the bracket and said latch for normally exerting an outward pressure upon the latch, a catch-plate carried by the support and normally in engagement with said latch, and an operating device carried by said door or movable support and connected to said latch.

3. In a device of the character described, the combination of a bracket provided with lugs, a latch positioned between said lugs, said lugs provided with registering apertures near their lower edge, said latch provided with a depending portion, having an aperture formed therein, means extending through the apertures of said lugs and through the aperture of said depending portion, and pivotally securing said latch upon said lugs, said bracket provided with a seat or socket formed therein between the lugs, a spring seated at one end in the seat formed in said bracket and having its opposite end bearing against the latch between the lugs, said lugs constituting a protecting casing for said spring, the lower end of said depending portion extending below the lower end of said lugs and below the lower end of the bracket, said latch provided with a vertical, flat finger-portion, said finger portion provided with a transverse aperture, the depending portion and the finger portion formed in the same vertical plane, said latch provided with a hook portion formed at right-angles to the plane in which said depending portion and finger portion is formed, means positioned in the aperture of said finger portion, and being capable of swinging said latch upon a support, and a catch coöperating with said hook of the latch.

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

ERNEST E. VORE.

Witnesses:
ISAAC L. VORE,
ROBT. HANNA.