F. COLEMAN.

COMBINED LOCK AND LATCH.

APPLICATION FILED APR. 5, 1915.

1,145,185. **Patented July 6, 1915.**

Fig. 1

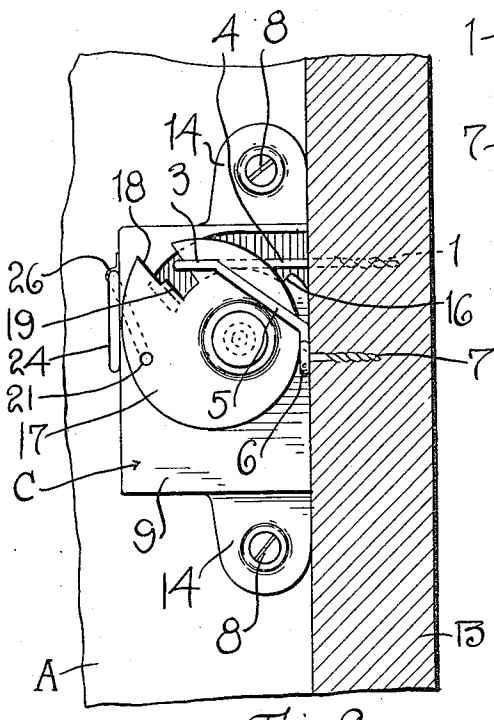


Fig. 3

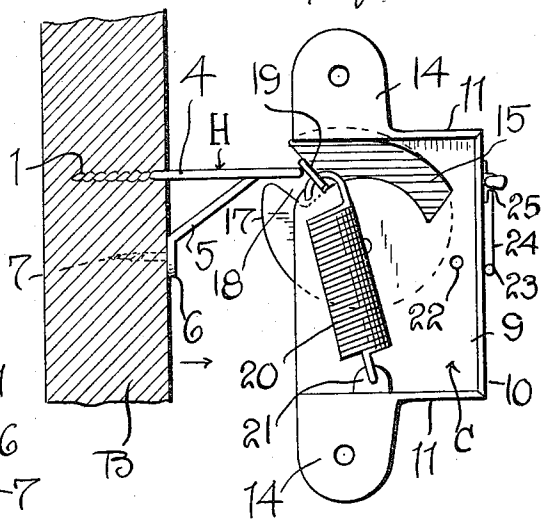


Fig. 2

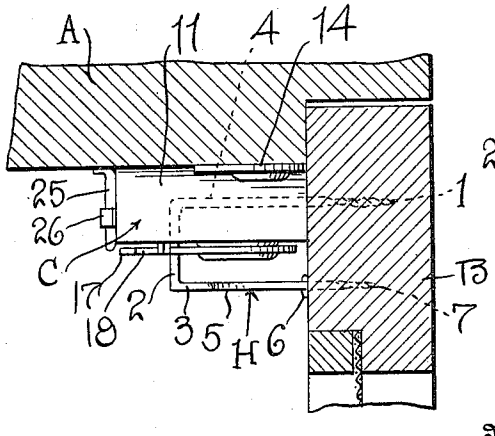


Fig. 4

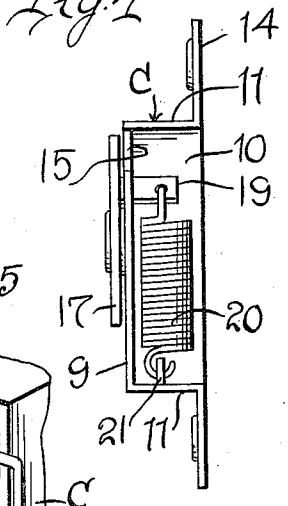
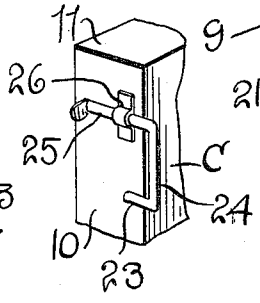


Fig. 5



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COMBINED LOCK AND LATCH.

1,145,185. Specification of Letters Patent. Patented July 6, 1915.

Application filed April 5, 1915. Serial No. 19,261.

To all whom it may concern:

Be it known that I, FRED COLEMAN, a citizen of the United States, residing at Danville, in the county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Combined Locks and Latches, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in combined locks and latches; and it is an object of the invention to provide a novel and improved device comprising a minimum of parts and affording a maximum of efficiency.

Furthermore, it is an object of my invention to provide a device of this general character especially designed and adapted for use in connection with a swinging door and having novel and improved means whereby the device will operate to maintain the door in proper contact with the jam.

It is also an object of my invention to provide a device of this general character particularly applicable to screen doors and the like and comprising a novel and improved structure whereby the same is free of any projections or the like which would possibly injure an object brought into contact therewith.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved combined lock and latch whereby certain important advantages are attained and the device is rendered simpler, less expensive and otherwise more convenient and advantageous for use, all as will be hereinafter more fully set forth.

The novel features of the invention will be carefully defined in the appended claim.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein—

Figure 1 is an elevational view illustrating a combined lock and latch constructed in accordance with an embodiment of my invention and in applied position, the coacting jamb being shown in elevation and the coacting door in section; Fig. 2 is a view in top plan of my invention as herein embodied, the coacting jamb and door being shown in section; Fig. 3 is an inside elevational view of my improved device, with the coacting hasp disclosed in an inoperative position; Fig. 4 is a front elevational view of my improved device; and Fig. 5 is a fragmentary view in perspective illustrating the lock member herein included.

As disclosed in the accompanying drawings, A denotes a fragment of a door frame jamb adapted to be engaged by the stile B of a door and projecting laterally from the stile B is the hasp member H included in my invention as herein embodied, and said hasp member H is preferably produced from a single length of wire of requisite gage having one extremity firmly secured to the stile B by having said extremity, as indicated at 1, provided with a gimlet pointed thread. At a predetermined point intermediate its length, the wire is bent to afford the lateral bar 2 and the reversely directed bar 3, said bar 3 being substantially parallel to the bar 4 on which the threads 1, hereinbefore referred to, are produced. The bar 3 extends rearwardly a predetermined distance and is then disposed downwardly on a predetermined incline, as indicated at 5, and terminates in the eye 6 adapted to bear against the stile B and through which is directed an anchoring member 7, herein disclosed as a conventional screw, whereby said hasp member is further maintained in applied position upon the stile and maintained against displacement.

Anchored to the jamb A through the medium, as herein disclosed, of the headed screws 8 is a casing C comprising a plate 9 maintained in predetermined spaced relation relative to the jamb through the medium of the rear flange 10 and the side flanges 11, said side flanges 11 being provided with the laterally disposed perforate feet or extentions 14 through which the screws 8, hereinbefore referred to, are disposed.

Adjacent its upper end, the plate 9 is provided with the cam slot 15 of predetermined pitch and into which is adapted to be projected the hasp member H, hereinbefore referred to, with the portion 5 of the hasp member exterior of the casing C whereby it will be perceived that the lateral bar 4 operatively coacts with the slot 15. The inner and major portion of the lower wall of the slot is segmental and affording a shoulder 16, for a purpose to be hereinafter more particularly referred to. At the axial center of the segmental portion of the lower edge of the slot 15 a disk 17 is operatively engaged with the plate 9 and adapted for ro-

tary movement, said disk being provided in its periphery with a radial open end slot 18, the base whereof being substantially flush with the segmental edge portion of the slot 15 and projecting inwardly and laterally from the lower portion of the inner side wall of the radial slot 18 is the lip or projection 19 serving as a buffer with which the bar 4 of the hasp member H is adapted to abut and also affording an anchoring means for an extremity of the retractable member 20, herein disclosed as a conventional coil spring, possessing the requisite tension, the opposite extremity of said retractable member being secured to the tongue 21 struck from the lower end flange 11. The inward movement of the disk 17 is limited by the contact between the lip or projection 19 with the inner extremity of the slot 15, while the outward movement of said disk is limited by the contact of said lip or projection 19 with the shoulder 16, hereinbefore referred to, and it will be readily perceived that the retractable member 20, hereinbefore referred to, will serve to automatically maintain the disk at the limit of its movement in either direction after the hasp member H has caused the lip or projection 19 to pass a vertical center.

When the disk 17 is at the limit of its outward movement, the open end of the slot 18 thereof intersects the outer or open end of the slot 15 so that the hasp member H may enter within the slot 18, and it is to be noticed that the bar 4 is of such a length as to assure the disk 17 being forced inwardly beyond its vertical center whereupon the retractable member 20 will automatically serve to assure the requisite contact between the jam A and stile B even though said stile be warped as often occurs in practice especially when a screen door is employed.

The disk 17 has produced therethrough an opening 21 which, when said disk is at the limit of its inward movement, is in alinement with an opening 22 produced in the plate 9 and through which is adapted to be inserted the locking pin 23 whereby it will be perceived that the disk 17 will be effectively maintained against outward movement and the door effectually locked. As herein embodied, the pin 23 depends from an extremity of an arm 24 projecting at right angles from a stem 25 rotatably mounted within a cleat or sleeve 26 carried by the rear flange 10 of the casing C and of such a length as to readily permit the locking pin 23 to be applied to or removed from operative engagement with the disk 17 and also permitting said pin to be swung in a position away from the casing when the same is not intended for use.

From the foregoing description, it is thought to be obvious that a combined lock and latch constructed in accordance with my invention is of an extremely simple and comparatively inexpensive nature and is particularly well adapted for use by reason of the convenience and facility with which it may be assembled, and it will also be obvious that my invention is susceptible of some change and modification without material departure from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice.

I claim:

A device of the character described including a plate provided with securing means and with an open cam slot, a hasp member adapted to be received within said slot, a disk rotatably supported by the plate and provided with a recess in its periphery also adapted to receive the hasp member, coacting means carried by the disk and the plate for limiting the movement of the disk in opposite directions, automatic means for imparting movement to the disk when the recess of the disk is carried by a center, said plate and disk being provided with openings adapted to register when the disk is at the limit of its movement in one direction, an arm rotatably supported by the plate and disposed laterally of the disk, a stem carried by the arm adapted to overlie the disk, and a pin projecting inwardly from the stem and adapted to be inserted through the openings of the disk and the plate when in register, the rotatable arm being also capable of endwise movement.

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

FRED COLEMAN.

Witnesses:

WILLIAM T. WIPREY,

HARRISON N. DARE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."