

L. WILLIAMS.
LOCKING HOOK.
APPLICATION FILED NOV. 28, 1911.

1,065,857.

Patented June 24, 1913.

Fig. 1. Fig. 1^a.

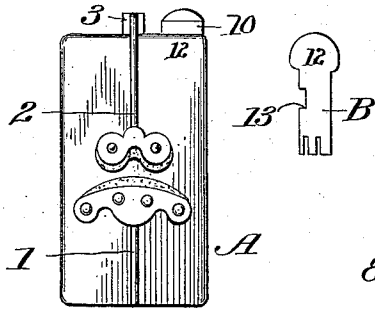


Fig. 2.

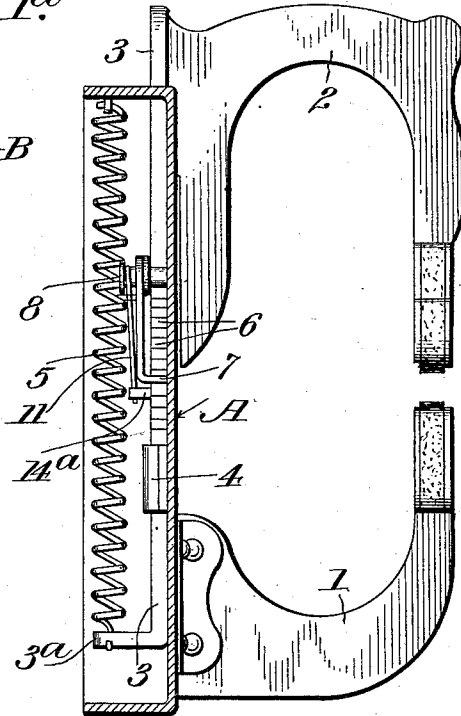


Fig. 3.

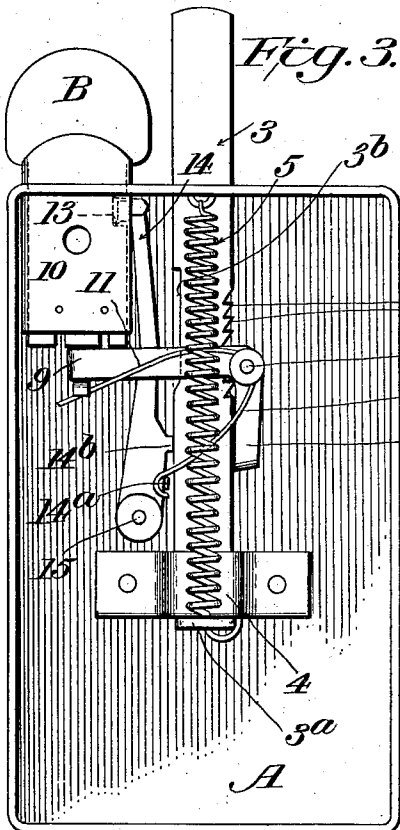
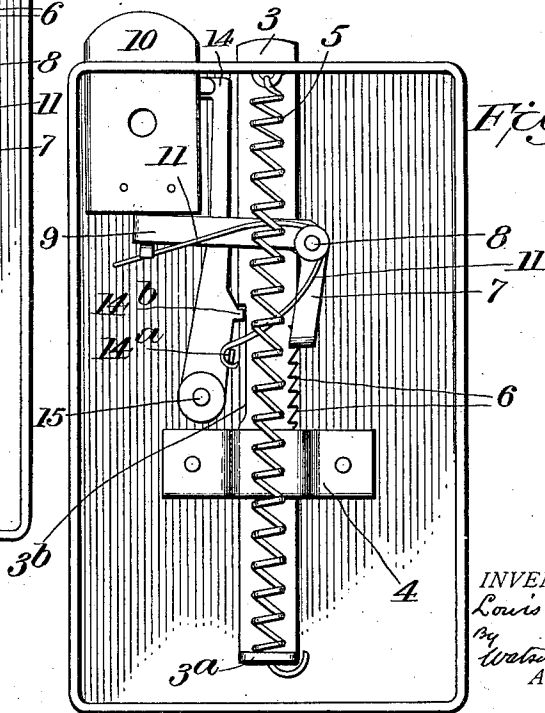


Fig. 4.



WITNESSES

C. H. Walker
Newton P. Willis

INVENTOR
Louis Williams
By *Watson & Hayden*
Attorneys

UNITED STATES PATENT OFFICE.

LOUIS WILLIAMS, OF DENVER, COLORADO.

LOCKING-HOOK.

1,065,857.

Specification of Letters Patent.

Patented June 24, 1913.

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To all whom it may concern:

Be it known that I, LOUIS WILLIAMS, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Locking-Hooks, of which the following is a specification.

The present invention relates to hooks for supporting hats and garments and for locking such articles upon the supporting means. In Patent No. 863,726, granted to P. H. Knowlton and myself, on August 20th, 1907, is shown a device for this purpose embodying a casing having a stationary supporting hook, a movable hook mounted upon a slide and adapted to grip the articles upon the stationary hook, a dog for locking the slide when the hooks are brought together, a key for releasing the dog, a spring for returning the slide and movable hook to normal positions, when released, and a dog or pawl for locking the key when the slide is released and for releasing the key when the slide is locked. The present invention embodies similar features, but the dogs for locking the slide and the key are differently constructed and arranged, with a view to making the device more certain and satisfactory in operation. It is essential to the commercial success of a device of this character that it shall always operate positively to lock the hat or garment when desired and also to release it when the proper check or key is applied. If the device is locked upon a garment and fails to release the garment promptly when desired, embarrassment and delay may result to the party owning the garment and this, of course, condemns the use of the device. In the device of the aforesaid patent, the locking dog for the hook-slide is pivoted beneath the key sheath and extends at quite an angle to the hook-slide. With this arrangement I have found that the dog will sometimes slip over the teeth on the hook-slide, particularly after the teeth have become worn and, also, in releasing the dog from the hook-slide, greater pressure by the key is required than in my present arrangement, wherein the dog is pivoted close to the slide, at a distance from the key sheath, by which arrangement the thrust upon the dog is nearly parallel with the plane of movement of the slide, and a greater leverage is afforded for tripping the dog by means of the key when it is desired to release the slide.

In the accompanying drawing,—Figure 1 is a front elevation of the locking hook, on a reduced scale; Fig. 1^a is a similar view of the key; Fig. 2 is a side elevation of the locking hook, the casing being shown in vertical section, and the hook-slide being in its locked position; Fig. 3 is a rear elevation of the locking hook, the parts being shown in normal position; and, Fig. 4 is a similar view showing the hook-slide locked in its lower position, the key being removed.

Referring to the drawing, A indicates a sheet metal casing, open at the back and adapted to be secured to a suitable support which forms a back for the casing when the latter is in operative position. A stationary hook 1 is secured to the front wall of the casing, near its lower end, and a movable hook 2 is mounted upon a slide 3, which is movable within the casing, in a guide 4 and a suitable guide-opening in the upper wall of the casing. A spring 5, secured at one end to the upper wall of the casing and at the opposite end to a projection 3^a on the slide, tends to normally hold the movable hook and slide in an upper position so that a hat or garment may be placed upon the lower hook. The slide 3 is provided with teeth 6 extending along one of its edges, and a dog 7 mounted upon a pivot pin 8, close to said edge, is adapted to engage the teeth when the slide is depressed. A tripping arm 9, secured to the dog, and arranged at right angles thereto, extends past the slide and beneath a key sheath 10 which is arranged at the opposite side of the slide from the pivot 8. A key B is adapted to fit into the key sheath, and, when depressed to its fullest extent, the key will rock the arm 9 and dog 7 so as to swing the latter out of line with the teeth 6 and thereby permit the spring 5 to move the slide to its upper position, and a spring 11 normally presses the dog 7 toward the adjacent edge of the slide. The key B is provided with a shoulder 13 and when the key is within the sheath and the slide is in its upper position, the key is locked against removal by a pawl 14 which extends through a suitable recess in the key sheath and projects above the shoulder 13 on the key. The pawl 14 is mounted upon a pivot 15, at the opposite side of the slide from the pivot 8. The spring 11, engaging a projection 14^a on the pawl 14, always presses the latter toward the slide, and a projection 14^b on the

pawl bears against the slide. When the slide is in its upper position, the pawl 14 is held thereby in position to lock the key within the sheath, this position being shown in Fig. 3; but when the slide is depressed the projection or bearing 14^b on the pawl rides into a recess portion 3^b on the slide and the pawl therefore moves out of engagement with the shoulder 13 on the key and the latter can be removed.

In operation, a hat or other article of apparel is placed upon the stationary hook 1, and the hook 2 is pressed downward until it grips the article against the hook 1. When the hook-slide is moved down the pawl 7 locks it in its lower position and the pawl 14 moves into the position shown in Fig. 4, which permits of the removal of the key. Each casing is suitably numbered and its key is correspondingly numbered and keys are constructed so that, where a multiplicity of locking devices are used, the several keys will fit only their correspondingly numbered locking devices. Therefore until the key is replaced the hat or garment cannot be removed from the hook. To release the garment the key is inserted in the sheath and pressed downward to its fullest extent. The lower end of the key engaging the trip arm 9, as shown in Fig. 3, throws the dog 7 out of engagement with the teeth on the slide and the spring 5 immediately lifts the hook-slide permitting the garment to be removed. As the slide moves upward the pawl 14 is moved into locking position over the shoulder on the key, and the key therefore becomes locked to the casing, so that the party using the device will not absent-mindedly carry away the key. It will be seen that the thrust of the slide against the

dog 7 is almost vertical and that the arrangement of the arm 9 with reference to the key sheath provides sufficient leverage for releasing the dog with only a slight pressure on the key, which is desirable, since devices of this kind are used by the public generally, without special instructions, and the act of replacing the key should release the lock, without requiring any considerable amount of pressure on the key.

What I claim is:—

The combination with a casing and a supporting hook secured thereto, of a slide movable vertically in the casing and having a hook secured thereto, said slide having teeth on one edge and a recess and cam surface on its opposite edge, said cam surface being below the recess, a key-sheath extending into the casing parallel with the slide and adjacent the latter edge, a key adapted to fit said sheath and having a shoulder, a pawl for engaging said teeth pivoted close to the toothed edge of the slide and having an arm extending past the slide and into the plane of the key at the inner end of the key-sheath, a vertically arranged pawl, pivoted at its lower end and extending between the key-sheath and slide, for engaging the shoulder on the key, said pawl having a part above its pivotal point for engaging the adjacent edge of the slide, means for constantly pressing said pawls toward the slide, and a spring for moving said slide to separate the hooks.

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

LOUIS WILLIAMS.

Witnesses:

P. H. KNOWLTON,
G. V. RICHARDS.