No. 646,066. Patented Mar. 27, 1900.

D. E. CATHRELL.

COAT LOCK.

(Application filed Nov. 20, 1899.)

(No Model.) 2 Sheets—Sheet 1.

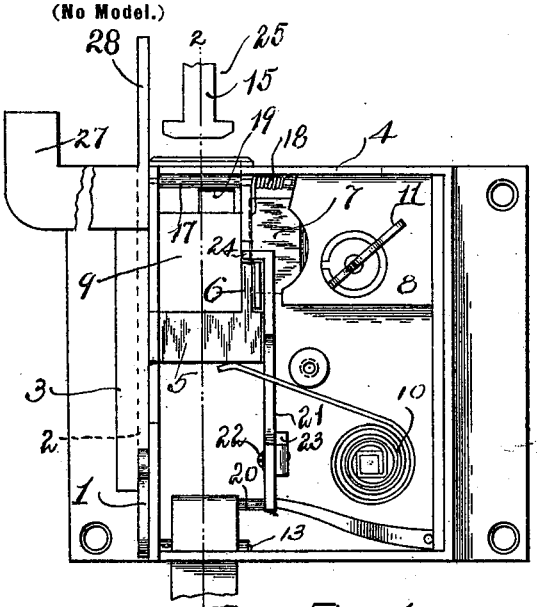

Fig. 1.

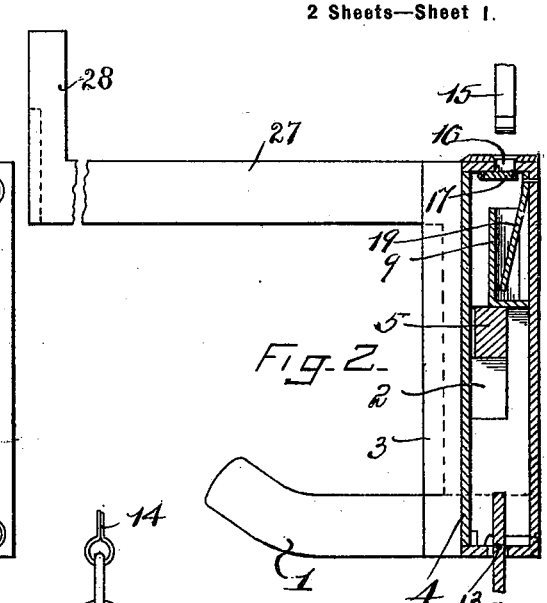

Fig. 2.

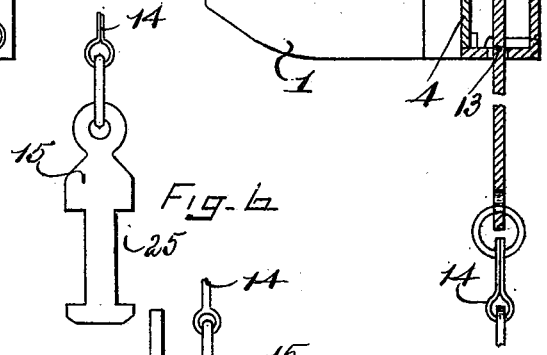

Fig. 6.

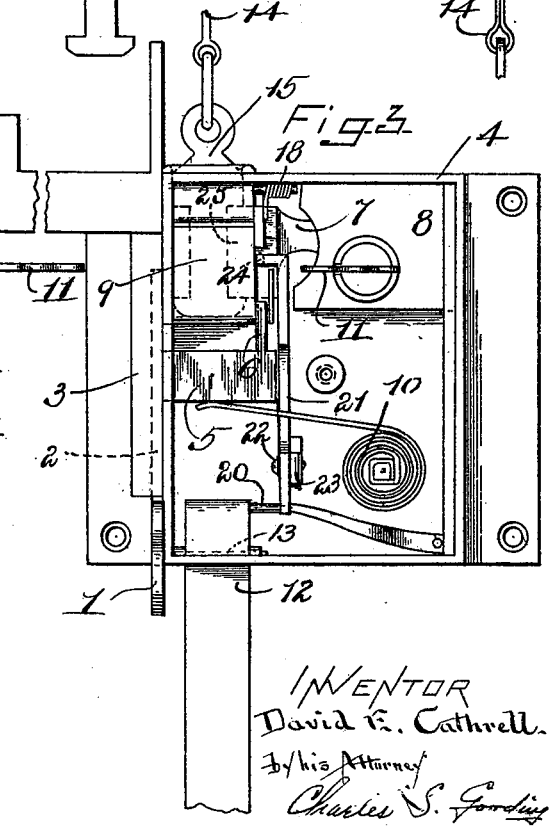

Fig. 3.

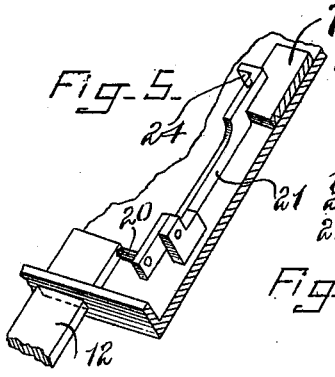

Fig. 5.

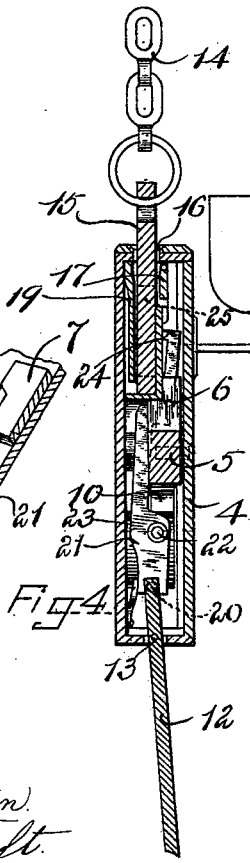

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

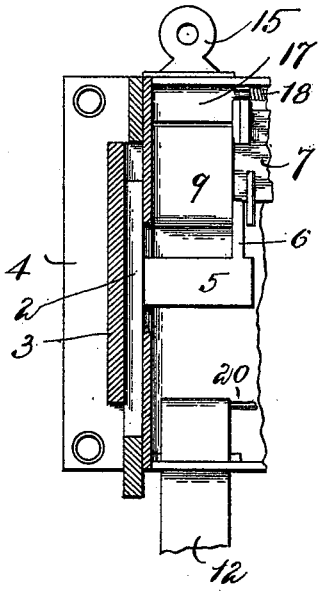

Fig-7-

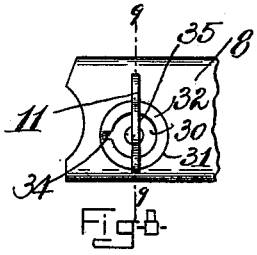

Fig-8-

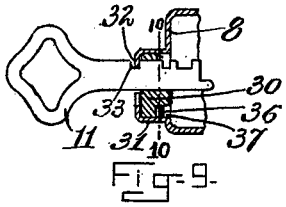

Fig-9-

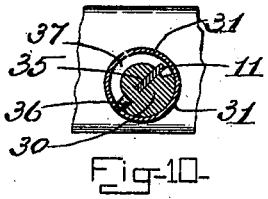

Fig-10-

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UNITED STATES PATENT OFFICE.

DAVID E. CATHRELL, OF BOSTON, MASSACHUSETTS.

COAT-LOCK.

SPECIFICATION forming part of Letters Patent No. 646,066, dated March 27, 1900.

Application filed November 20, 1899. Serial No. 737,575. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. CATHRELL, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Coat-Locks, of which the following is a specification.

The object of this invention is to provide a coat-hook upon which an overcoat may be hung and to which said overcoat may be locked to prevent its being stolen.

The invention consists in means for locking an overcoat to the hook upon which it is hung.

The invention further consists in a combination and arrangement of parts which renders it impossible to withdraw the key from the lock until the overcoat-locking mechanism has been actuated.

The invention still further consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a front elevation of my improved coat-lock with the plate removed from said lock to show the mechanism thereof. Fig. 2 is a longitudinal section taken on line 2 2, Fig. 1, looking toward the left in said figure. Fig. 3 is a view similar to Fig. 1, with the several parts in the positions assumed by them when the coat is hung thereon and the device is locked. Fig. 4 is a section taken on line 4 4, Fig. 3, looking toward the right in said figure. Fig. 5 is a perspective view of a portion of the locking mechanism. Fig. 6 is a front elevation of the locking plate and chain. Fig. 7 is a front elevation of a portion of my improved coat-lock similar to Fig. 1, with a portion of the casing shown in section. Fig. 8 is a detail front elevation of the key and a portion of the casing which covers the locking mechanism. Fig. 9 is a detail section taken on line 9 9, Fig. 8, showing the key in elevation and a portion of the casing in section. Fig. 10 is a cross-section taken on line 10 10, Fig. 9.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 1 is the hook, upon which the coat is hung. Said hook is formed upon a slide 2, which slides in ways 3 upon a fixed casing 4. Said hook has a projection 5 thereon, said projection 5 having another projection 6, which extends vertically, Fig. 1, from the portion 5 and in front of the bolt 7 of an ordinary locking mechanism, (not shown in the drawings in detail,) being covered by the plate 8, any ordinary locking bolt and mechanism being sufficient for the purpose.

As shown in Fig. 1, when the coat is not hung upon the hook 1 the slide 2 and projections 5 and 6 are held up against a stop 9 by a spiral spring 10, which bears against the under surface of the projection 5, holding the slide 2 and hook 1, also the projections 5 and 6, up against the stop 9, the projection 6 being directly in front of the locking-bolt 7 and preventing said bolt from being thrown to the left by the key 11. It is evident, therefore, until the weight of the coat upon the hook 1 moves the latter downwardly to the position shown in Fig. 3 that the bolt 7 cannot be thrown to the left by the key 11.

A locking-chain lever consisting of a flat piece of metal 12 is pivoted at 13 to the casing 4 and has a locking-chain 14 attached to the lower end thereof, said chain terminating in a locking-plate 15.

When the coat is hung upon the hook 1 and the slide 2 and the projections 5 and 6 have been drawn down out of the path of the locking-bolt 7, the locking-chain 14 and locking-plate 15 are carried through the coat-sleeve from the top to the bottom of said sleeve and the locking-plate 15 is slid into the slot 16 in the top of the casing 4. The slot 16 is closed by a swing-plate 17, which is kept up in the position shown in Figs. 1 and 2 by a spiral torsional spring 18. When the locking-plate 15 is pushed through the slot 16 into the casing 4, as shown in Figs. 3 and 4, it will push to one side the flat spring 19, which previous to the introduction of said locking-plate stood in the position shown in Fig. 2 and directly in the path of the locking-bolt 7, so that said locking-bolt could not be thrown to the left by the key 11 until the locking-plate 15 had been inserted through the slot 16 and the spring 19 pushed to the right, Fig. 2, into the position shown in Fig. 4. It is therefore evident that until the locking-plate 15 is inserted in the casing, as described, the locking-bolt 7 cannot be thrown to the left, Fig. 1, by the key 11.

The locking-chain 14 is made of such length

that it cannot be passed through the coat-sleeve and the locking-plate 15 inserted in the casing, as described, without tipping the locking-chain lever 12 from the vertical position (shown in Fig. 2) to the canted position. (Shown in Fig. 4.)

The locking-chain lever 12 is pivotally connected at 20 to a locking-lever 21, pivoted at 22 to a lug 23, fast to the casing 4.

The upper end of the locking-lever 21 has a projection 24, which stands in front of the locking-bolt 7 when the parts are in the position shown in Fig. 1 and is thrown out of the path of said bolt, as shown in Figs. 3 and 4, when the locking-lever 21 is tipped by the locking-chain lever 12, as shown in Figs. 3 and 4. It will thus be seen that when the coat is hung upon the hook 1, the locking-plate 15 introduced into the casing 4, and the locking-chain lever 12 tipped at an angle, as described, the lock-bolt 7 can be thrown by the key 11 to the left, Fig. 1, into the position shown in Fig. 3, and the end of said lock-bolt 7 will enter the recess 25 in said locking-plate 15 and the key can be withdrawn from the lock, leaving the locking-plate 15 locked to the casing 4 by the lock-bolt 7, and it will thus be seen that the coat cannot be removed from the hook without the aid of the key 11 to throw back the lock-bolt 7, so that the locking-plate 15 can be withdrawn from the casing 4 and slipped through the sleeve of the coat to disengage it from the hook 1.

The key 11 is inserted in a slot 35 in the plug 30, said plug being connected to the locking mechanism. (Not shown.) Said plug 30 turns in a cylindrical projection 31 upon the portion of the casing 8 covering the locking mechanism. Upon the front of the projection 31 is a flange 32, which enters a notch 33 in the key 11. Said flange 32 has a notch 34 therein, which allows the key 11 to be introduced into the slot 35 in the plug 30 when said slot is in line with said notch, this alinement occurring when the lock-bolt 7 is thrown to the left and when the parts are in the relative position shown in Fig. 3. The key can then be removed from the lock or inserted therein, and in no other position. The pin 36, fast to the projection 31, enters a groove 37 in the plug 30 and forms a stop for said plug, so that when the key is turned to the position shown in Fig. 1 it can be turned no farther toward the right on account of one end of the groove in the plug 30 coming against the pin 36, and in turning the key to the left from the position shown in Fig. 3 the other end of the groove comes against the pin 36 and prevents the key from being turned any farther to the left than shown in said Fig. 3.

It will therefore be noted that the key cannot be removed from the lock without pulling down the hook 1, inserting the locking-plate 15, tipping the locking-chain lever 12 to the position shown in Fig. 4, and turning said key to the position shown in Fig. 3, when it will be in line with the notch 34 and it can be withdrawn from the lock. Any one of these three movements would be inoperative by itself as far as removing the key from the lock is concerned, as all three of the movements have to be made in order to make it possible to turn the key 11 to the position shown in Fig. 3, whence it can be disengaged from the lock.

It is evident that the locking-chain 14 might be attached directly to the locking-lever 21 without departing from the spirit of my invention.

Upon the casing 4 I have provided a hook 27, having a vertical projection 28 thereon, the object of the hook being to hold a hat and of the projection to prevent said hat from swinging around in front of the face of the lock.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a coat-lock, a casing, a coat-hook slide movable therein, a hook fast to said coat-hook slide, and means for keeping said coat-hook slide normally raised, a reciprocatory lock-bolt, means for moving said lock-bolt across the path of movement of said coat-hook slide, and a projection upon said coat-hook slide which stands in the path of movement of said lock-bolt when said coat-hook slide is raised.

2. In a coat-lock, a casing, a locking-lever pivoted to said casing, a chain, one end connected to said casing, the other end to said locking-lever, in combination with a lock-bolt and means for moving said lock-bolt across the path of movement of said locking-lever.

3. In a coat-lock, a casing, a coat-hook slide movable therein, a hook fast to said coat-hook slide, and means for keeping said coat-hook slide normally raised, a chain connected to said casing, and a locking-plate attached to said chain, in combination with a lock-bolt and means for moving said lock-bolt into engagement with said locking-plate and across the path of movement of said coat-hook slide.

4. In a coat-lock, a casing, a coat-hook slide movable therein, a hook fast to said coat-hook slide, and means for keeping said coat-hook slide normally raised; a locking-lever pivoted to said casing, a chain, one end connected to said locking-lever, the other end to said casing; in combination with a lock-bolt and means for moving said lock-bolt across the paths of movement of said coat-hook slide and locking-lever.

5. In a coat-lock, a casing, a locking-lever pivoted to said casing, a chain, one end connected to said locking-lever, the other end attached to a locking-plate, in combination with a lock-bolt and means for moving said lock-bolt into engagement with said locking-plate and across the path of movement of said locking-lever.

6. In a coat-lock, a casing, a coat-hook slide, and means for keeping said coat-hook slide

normally raised, a locking-lever pivoted to said casing, a chain, one end connected to said locking-lever, the other end attached to a locking-plate, in combination with a lock-bolt and means for moving said lock-bolt into engagement with said locking-plate and across the paths of movement of said coat-hook slide and locking-lever.

7. In a coat-lock, a casing, a coat-hook slide movable therein, and means for keeping said coat-hook slide normally raised; a locking-chain, one end connected to a locking-chain lever pivoted to said casing, the other end having a locking-plate attached thereto; and a locking-lever pivoted to said casing actuated by said locking-chain lever, in combination with a locking-bolt, means for moving said locking-bolt into engagement with said locking-plate and across the paths of movement of said coat-hook slide and locking-lever.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DAVID E. CATHRELL.

Witnesses:
CHARLES S. GOODING,
WILLIAM CLAUS.